BY ORDER OF THE
SECRETARY OF THE AIR FORCE

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Weather

AIR FORCE WEATHER STANDARDIZATION AND EVALUATION PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directive 15-1, *Atmospheric and Space Environmental Support*. It provides guidance and procedures for conducting the evaluation of Air Force Weather (AFW) technical proficiency and compliance with Headquarters United States Air Force (HQ USAF) standards. It outlines the frequency of evaluations, responsibilities of the AFW Standardization and Evaluation Program (AFWSEP) team members, and reporting format. It defines the method of computing a conformity index, which depicts an indication of compliance with HQ USAF policies and standards. This instruction applies to all USAF active duty, Air Force Reserve, Air National Guard (ANG) and civilian-contracted (except ANG units) weather units. All references to Major Commands (MAJCOM) pertain specifically to HQ MAJCOM Directorate of Weather and/or weather Functional Area Manager functions and personnel. Send comments and suggested improvements on AF Form 847, Recommendation for Change of Publication, through channels, to HQ AFWA/XOPS, 106 Peacekeeper Drive Ste 2N3, Offutt AFB NE 68113-4039. MAJCOMs and Direct Reporting Units (DRU) may supplement this instruction. If supplemented, MAJCOMs and DRUs will send one copy of their supplement to HQ AFWA/XOPS. Maintain and dispose of records created as a result of prescribed processes in accordance with AFMAN 37-139, *Records Disposition Schedule*.

(AMC) AFI 15-180, 6 July 2001, is supplemented as follows. AFI 15-180 provides guidance and procedures for conducting the evaluation of Air Force Weather (AFW) technical proficiency and compliance with Headquarters United States Air Force (HQ USAF) standards. It outlines the frequency of evaluations, responsibilities of the AFW Standardization and Evaluation Program (AFWSEP) team members, and reporting format. It defines the method of computing a conformity index, which depicts an indication of compliance with HQ USAF policies and standards.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

Chapter 1

INTRODUCTION

1.1. General. Air Force Weather (AFW) supports operational forces through an integrated structure composed of AFW strategic centers, Operational Weather Squadrons (OWS), Weather Squadrons (WS), and Combat Weather Teams/Operating Locations. The AFW Standardization and Evaluation Program (AFWSEP) objectively evaluates and measures the ability of critical elements within this integrated structure to provide the highest quality, mission-tailored terrestrial and space weather information by ensuring deployed and garrison weather operations are executed in compliance with appropriate directives.

1.2. Objectives.

1.2.1. Provide commanders an independent, objective measurement of compliance with appropriate directives and a graded assessment of the technical health of weather units.

1.2.2. Benchmark and crossfeed innovative methods to accomplish the mission.

1.2.3. Report on and provide guidance concerning trend information, system improvements, and class problems for higher headquarters consideration.

1.3. Scope. This program applies to all Air Force, Air Force Reserve, Air National Guard (ANG), and civilian-contracted (except ANG) weather units. All pertinent weather technical areas that are part of, or directly affect, AFW and AFW-supported agency operations are subject to evaluation.

1.4. Responsibilities.

1.4.1. The Standards and Evaluation Branch (HQ AFWA/XOPS) will oversee the AFWSEP and act as Office of Primary Responsibility (OPR) for this instruction, including evaluation items and Weather Interest Items/Special Interests Items (WIIs/SIIs).

1.4.2. Major Commands (MAJCOM) will act as Office of Collateral Responsibility (OCR) for this instruction and may supplement it as they see fit. In addition, MAJCOMs will also act as OPR for any MAJCOM unique WIIs/SIIs.

1.4.3. MAJCOMs may delegate specific AFWSEP duties to appropriately qualified and experienced weather personnel at a Numbered Air Force (NAF). However, the MAJCOM retains overall responsibility for oversight, scheduling, execution, and validation of the AFWSEP within the MAJCOM.

Chapter 2

AFWSEP VISITS TO AFW STRATEGIC CENTERS AND OPERATIONAL WEATHER SQUADRONS

2.1. Headquarters Air Force Weather Agency (HQ AFWA) Responsibilities.

2.1.1. Schedule and lead AFWSEP visits to AFW strategic centers and OWSs. OWS visits must be coordinated with the owning MAJCOM.

2.1.2. Prepare an AFWSEP visit report on each AFW strategic center and OWS visited as outlined in **Chapter 5** of this instruction.

2.2. MAJCOM Responsibilities .

2.2.1. Augment HQ AFWA visits to OWSs where they have functional responsibility. MAJCOMs may also augment teams visiting OWSs servicing a unit where they have functional responsibility, but are required to follow the OWS's functional MAJCOM's requirements.

2.2.2. Augment HQ AFWA visits to AFW strategic centers if they desire.

2.3. Scheduling AFWSEP Visits.

2.3.1. HQ AFWA/XOPS will evaluate AFW strategic centers and OWSs at least once every 24 months.

2.3.2. HQ AFWA/XOPS will forward a general planning schedule to the MAJCOMs listing the intended OWS visits by 1 February for budget planning. HQ AFWA/XOPS will forward a copy of their annual fiscal year AFWSEP visit schedule to the MAJCOMs by 1 August each year for augmentee planning. HQ AFWA/XOPS will also coordinate and schedule any changes with the MAJCOMs.

2.3.3. HQ AFWA/XOPS will coordinate OWS visits with the OWS Commander (OWS/CC) and MAJCOMs providing augmentation.

2.4. AFWSEP Visit Notification Procedures.

2.4.1. The AFWA Commander (AFWA/CC) will provide notification to the MAJCOM and NAF or appropriate parent command Director of Operations (DO) no later than 60 days prior to the event. This notification will include the following items:

2.4.1.1. Evaluation dates.

2.4.1.2. AFWSEP team logistical requirements (i.e., office space, computer support, vehicle support, billeting, and phones).

2.4.1.3. A request for locally developed guidance and procedures (i.e., Weather Support Documents and/or Formal Agreements, Forecast Reference Notebooks (FRNs), Analysis and Forecast Programs (AFP), Standing Operating Procedures).

2.4.1.4. A request for any locally identified items requiring special attention.

2.4.2. The commander of the unit being evaluated will acknowledge receipt and advise HQ AFWA/XOPS at least 30 days prior to scheduled evaluation date of any requirements that cannot be met.

Chapter 3

AFWSEP VISITS TO WEATHER SQUADRONS, FLIGHTS, DETACHMENTS AND OPERATING LOCATIONS

3.1. MAJCOM Responsibilities.

3.1.1. Schedule and lead AFWSEP visits at MAJCOM and MAJCOM-gained weather units (not including OWSs) where they have functional responsibility.

3.1.2. Prepare an AFWSEP visit report on each weather unit (not including OWSs) visited as outlined in **Chapter 5** of this instruction.

3.2. HQ AFWA Responsibilities. Augment MAJCOM-lead AFWSEP visits upon request.

3.3. Scheduling AFWSEP Visits.

3.3.1. MAJCOMs will conduct AFWSEP visits to weather squadrons, flights, detachments, and operating locations at a frequency consistent with the MAJCOM inspection and visit policy. MAJCOMs should schedule AFWSEP visits to coincide with other MAJCOM evaluations to the maximum extent possible. The AFWSEP evaluation requirement may be satisfied through a functional inspection, unit compliance inspection, Air Traffic System Evaluation Program visit, or other appropriate visit to minimize the evaluation footprint.

3.3.2. MAJCOMs will forward a copy of their annual fiscal year AFWSEP visit-planning schedule to HQ AFWA/XOPS by 1 July each year, or as soon as it becomes available, for augmentee planning and budgeting. MAJCOMs will also forward any schedule changes to HQ AFWA/XOPS as they occur.

3.4. AFWSEP Visit Notification Procedures . MAJCOMs will notify the unit being evaluated in accordance with MAJCOM policy.

3.4.1. (Added-AMC) AMC/DOW will send a letter to the unit's operations support squadron commander approximately 60 days prior notifying him/her of the proposed AFWSEP visit.

Chapter 4

CONDUCTING AFWSEP VISITS

4.1. Overview. The AFWSEP visit is compliance oriented. Evaluators will follow the guidelines established in this Air Force Instruction (AFI) and use all applicable regulatory guidance to perform evaluation duties. These duties may include observing weather unit operations, interviewing key personnel from supported organizations, reviewing local procedures and documentation, and conducting task evaluations. MAJCOM and HQ AFWA weather personnel will participate as AFWSEP team members to ensure an in-depth evaluation of weather support functions.

4.1.1. For any particular evaluation, the AFWSEP team composition and scope of the evaluation will be determined by the AFWSEP team chief.

4.1.2. The team chief is determined by the "lead" agency responsible for the AFWSEP visit as stated in **Chapter 2** and **Chapter 3**.

4.2. Evaluation Items. Evaluators will use the AFWSEP evaluation items listed in **Attachment 4** and WIIs/SIIs to determine the evaluated unit's compliance with appropriate directives. MAJCOM evaluators may supplement the list as they see fit to determine unit compliance with MAJCOM specific directives.

4.2.1. Any changes to the evaluation item list will be published as changes to this AFI using standard procedures. Listed items will be subject to evaluation 6 months after initial publication and 90 days after publication of subsequent changes.

4.2.2. WIIs/SIIs. HQ USAF/XOW, AFWA/CC, or MAJCOMs identify WIIs/SIIs to be included during evaluations. Organizations may request site specific items be assessed. Requests for WII/SII evaluation must contain the requested item, the effective date for assessment, the cancellation date, and identify the supporting documentation defining the requirement. WIIs/SIIs remain in effect for no more than 6 months. Locally identified, site-specific items will be identified for that base/post only. Any long-term requirement will be incorporated into the AFWSEP checklist. Crucial items identified through HQ USAF, HQ AFWA, or MAJCOM channels must be disseminated expeditiously on a case-by-case basis.

4.3. Evaluation Areas. The following are the two major evaluation areas and associated weighted percentages:

4.3.1. Process Review Area (PR); (50 percent of final Conformity Index [CI]). The process review area will be evaluated by analyzing the processes and procedures unit leadership uses to comply with AFW established standards. The process review will be accomplished using evaluation items, program reviews, and direct observation. The intent is to evaluate how effectively the unit's leadership infuse meteorology and technical quality into day-to-day weather operations; establish concrete procedures and agreements to meet their customer's needs; and comply with established manuals, instructions, and concepts pertaining to weather operations. The following PR sub-areas will be evaluated using **Attachment 4**:

4.3.1.1. Observing Processes.

4.3.1.2. AFP - Analysis and Forecast Processes.

4.3.1.3. AFP - Generation and Dissemination Processes.

4.3.1.4. Meteorological Watch and Resource Protection Processes.

4.3.1.5. Mission Execution Forecast Processes.

4.3.1.6. PMSV/PIREPs/AIREPs Processes.

4.3.1.7. Administrative Plans, Programs, and Staff Support.

4.3.1.8. Meteorological Equipment, Instrumentation, and Sensors.

4.3.1.9. Weather Communication and Product Development Systems.

4.3.1.10. Training.

4.3.1.11. MAJCOM Unique Items.

4.3.2. Operational Area (OP); (50 percent of final CI). The operational area will be evaluated using individual task evaluations and direct observation based on the individual's certification/qualification level. If no significant weather is present, the evaluator may use scenario-based exercises. These exercises will not conflict with real-time mission tasks. The following OP sub-areas will be evaluated using **Attachment 4**:

4.3.2.1. Evaluate Weather Elements for Observation.

4.3.2.2. Encode and Disseminate Forecasts and Observations.

4.3.2.3. Fixed, Back-up, and Communications Equipment Operations.

4.3.2.4. Analysis and Forecast Program.

4.3.2.5. Meteorological Watch and Resource Protection.

4.3.2.6. Mission Execution Forecast.

4.3.2.7. PMSV/PIREPs/AIREPs.

4.3.2.8. Radar.

4.3.2.9. METSAT.

4.3.2.10. MAJCOM Unique Items.

4.4. Overall Unit Ratings. MAJCOMs will follow published Air Force or supplemented MAJCOM guidance for determining the overall unit rating. For AFWA-led evaluations, the evaluated unit's rating will be determined using the procedures and definitions located in **Attachment 3**. A Rating Index (RI) will be determined for both the operational and process review areas. These two ratings will be added together for the overall CI. The CI is used to determine the final unit rating. See **Table 4.1.** for a breakdown of CI results and overall unit ratings.

Table 4.1. Determining Unit Rating.

The unit rating is:	**if:**	**and:**
OUTSTANDING	CI GTE 90	No sub-area LT Satisfactory
EXCELLENT	CI GTE 80 but LT 90	No sub-area LT Marginal
SATISFACTORY	CI GTE 70 but LT 80	
MARGINAL	CI GTE 60 but LT 70	

The unit rating is:	if:	and:
UNSATISFACTORY	CI LT 60	

NOTE: If a unit has a sub-area rated Marginal, then the highest overall unit rating possible is Excellent. If a unit has a sub-area rated Unsatisfactory, then the highest overall unit rating possible is Satisfactory.

4.4.1. (Added-AMC) AMC/DOW will use the same scale and ratings as AFWA-led inspections as outlined in **Attachment 3** when conducting AFWSEP visits on AMC weather units.

4.5. Briefings. Several briefings will occur during an AFWSEP visit. MAJCOM-led visits will conform to the MAJCOM briefing requirements. If there are no MAJCOM specific requirements, then the AFWSEP team chief may use the following guidance:

4.5.1. In-briefs. The Commander/Non-Commissioned Officer-in-Charge (NCOIC) of the evaluated unit together with the AFWSEP team chief will coordinate and schedule the in-brief.

4.5.1.1. The AFWSEP team chief will in-brief either the NAF or appropriate parent command/ DO, Operations Group Commander (OG/CC) or Air Support Operations Group Commander (ASOG/CC) or equivalent, or their designated representative. The team chief will provide information covering at least the following topics:

4.5.1.1.1. Introduction of team members.

4.5.1.1.2. Overview of AFWSEP evaluation and reporting.

4.5.1.1.3. Definition of an observation.

4.5.1.1.4. Definition of a discrepancy and closure process.

4.5.1.1.5. Evaluation and closure process for WIIs/SIIs.

4.5.1.1.6. Process for review of identified/potential discrepancies.

4.5.1.2. The Commander or NCOIC of the unit being evaluated will present a formal in-briefing to the AFWSEP team. This briefing will consist of at least the following topics:

4.5.1.2.1. The unit's mission.

4.5.1.2.2. The unit's customers (include their mission, weapon systems and weather impacts, customer's planning and execution cycle, etc.).

4.5.1.2.2.1. AFW strategic centers will focus on their assigned role in the integrated weather support structure and list the services provided to fulfill their mission.

4.5.1.2.2.2. Operational Weather Squadrons will focus on the Area(s) of Responsibility (AOR) supported, provide a listing of operational customers, and summarize the products provided to field units.

4.5.1.2.2.3. Weather Squadrons/Combat Weather Teams/Operating Locations will brief the following: units and weapon systems supported, weather impacts to operations, the customer's operational decision cycle, and Military Operating Areas (MOAs) and normal training areas.

4.5.1.2.3. The unit's key personnel (superintendents, systems and training managers, etc.).

4.5.1.2.4. The unit's work schedules during the evaluation.

4.5.1.2.5. The unit's personnel qualification status as defined by appropriate AF-level reference.

4.5.2. Progress Briefs. The AFWSEP team chief will brief the appropriate leadership level on the progress of the evaluation when requested. This briefing should include any observations, problems identified, status of WIIs/SIIs, and other areas of interest. Additionally, the team chief will provide daily progress updates to weather unit leadership.

4.5.3. Final Out-briefs. The Commander/NCOIC of the evaluated unit together with the AFWSEP team chief will coordinate and schedule the final out-brief. The AFWSEP team chief will brief either the NAF or appropriate parent command/DO, OG/CC, or ASOG/CC or equivalent, or their designated representative on the results of the visit and leave a copy of the AFWSEP report. The following information must be briefed as a minimum:

4.5.3.1. Overall assessment of weather unit. Make specific note of strengths and weaknesses.

4.5.3.2. Results of WIIs/SIIs evaluated.

4.5.3.3. Observations. Indicate the operational impact of each observation.

4.5.3.4. Discrepancies. Define relative impact of noncompliance (i.e., resources left unprotected, adverse impact to flight safety, mission failure, etc.).

4.5.3.5. Required Follow-up Actions. Before departing, the AFWSEP team chief will leave a copy of the report with the unit, explain the contents of the report and reply instructions, and the tracking and closure process for discrepancies.

4.5.3.6. Exceptional performers.

4.6. Follow-up Evaluations. HQ AFWA/XOPS will conduct follow-up evaluations within 6 months of initial evaluation for any AFW strategic center or OWS rated Unsatisfactory. The purpose of the follow-up visit is to assess progress in correcting discrepancies identified during the AFWSEP visit. Feedback is encouraged to assess progress in correcting any discrepancies identified during the visit. HQ AFWA/XOPS will advise the NAF or appropriate parent command/DO at least 60 days prior to conducting an on-site follow-up evaluation. MAJCOMs will conduct follow-up evaluations in accordance with MAJCOM policy.

Chapter 5

AFWSEP VISIT REPORTS

5.1. Overview. For HQ AFWA-led AFWSEP visits, the results of all evaluations are promptly reported to the NAF and appropriate parent command/DO and to the Commander/NCOIC of the evaluated unit. MAJCOMs will follow local guidance for reporting results.

5.2. HQ AFWA Responsibilities.

5.2.1. Prepare a report for each evaluation of an AFW strategic center/OWS using the format shown in **Attachment 2**.

5.2.1.1. Complete a final AFWSEP visit report prior to departure from the unit being evaluated.

5.2.1.2. Distribute copies of the final report to all MAJCOMs within 30 workdays following completion of the visit.

5.2.2. Provide the annual AFWSEP Executive Summary Report [HAF-XOW(SA)0115] and the Semiannual Trends and Analysis Report [HAF-XOW(SA)0114] to MAJCOMs and HQ USAF/XOW. The annual AFWSEP Executive Summary Report will normally be provided in December and will include a summary of the visits from the previous fiscal year. The Semiannual Trends and Analysis Report will normally be provided in June covering trends from the first half of the fiscal year. The trends and indicators included in these reports are determined using information extracted from previously published AFWSEP visit reports. These reports have been designated emergency status code C3. Continue reporting during emergency conditions, delayed precedence. Report may be delayed to allow submission of higher precedence reports or data.

5.2.3. Maintain a List of Itemized Discrepancies (LIDS). The LIDS identify individual non-compliance items. It is simply a list of all the evaluation items a unit did not comply with. The LIDS will be used to identify specific problem areas. In some cases a unit might not comply with one or two items in a particular sub-area, but overall the sub-area is not identified as a discrepancy area. The LIDS will identify these types of items.

5.3. MAJCOM Responsibilities.

5.3.1. Prepare a report for each AFWSEP visit conducted to a weather unit (not including OWSs) where they have functional responsibility. The format will conform to MAJCOM requirements. If no specific requirement exists, then MAJCOMs may use the format shown in **Attachment 2**.

5.3.2. Provide HQ AFWA/XOPS a numerical score for each area and sub-area. The numerical score is determined by dividing the total items evaluated as “in compliance” by the total items evaluated. The example AFWSEP Score Sheet shown in **Attachment 3** is one possible format; however, MAJCOMs may use any format they deem appropriate. Submit the scores to HQ AFWA/XOPS within 30 workdays following completion of the visit. HQ AFWA/XOPS will use this data for trend analysis and identification of class problems.

5.3.3. Maintain LIDS for each unit evaluated. Submit the LIDS to HQ AFWA/XOPS with the numerical scores. HQ AFWA/XOPS will use MAJCOM LIDS to further refine trend analysis and class problem identification.

5.3.4. Distribute soft copies of final report to all MAJCOMs and HQ AFWA/XOPS within 30 workdays following completion of the visit. If the report is part of a larger MAJCOM evaluation, only the weather portion is required.

5.4. AFWSEP Visit Report Content. AFWSEP visit reports will include Section I, Weather Technical Support; Section II, WIIs/SIIs; Section III, Observations; Section IV, AFWSEP Visit Results; and Section V, General Information. Include all sections and subsections in the report. Indicate if there is no information for a section. Mark all reports "FOR OFFICIAL USE ONLY" and handle accordingly. Do not use technical jargon since the report is written for operational echelons not familiar with weather terms.

5.4.1. Report Format Section I, Weather Technical Support.

5.4.1.1. Purpose and Scope. The evaluation report provides all management levels with a detailed account of how each weather unit conforms to Air Force standards and how personnel perform their duties.

5.4.1.2. Air Force Weather Setting. Briefly describe the mission(s) supported, including types of operations supported (i.e., air or ground forces, etc.) units and types of aircraft if applicable. Also, list any unique operational requirements supported by the unit.

5.4.1.2.1. AFW Strategic Centers. Briefly describe the area of strategic expertise assigned to the unit being evaluated (i.e., climatology, solar forecasting, hemispheric meteorology, etc.). Describe the role of the unit in the AFW integrated support structure and the operational application of strategic-level products developed by the unit.

5.4.1.2.2. Operational Weather Squadrons. Briefly describe the area of responsibility (AOR) and operational units serviced by the evaluated unit. Describe the role of the unit in the AFW integrated support structure and the operational application of the regional and sub-regional products developed by the unit and types of operations supported (air or ground, etc.), units and types of aircraft if applicable.

5.4.1.2.3. Weather Squadrons/Combat Weather Teams/Operating Locations. Briefly describe the mission(s) supported, including types of operations supported (i.e., air or ground forces, etc.), units and types of aircraft if applicable. Also, list any unique operational requirements supported by the unit being evaluated.

5.4.1.3. Executive Summary. An Executive Summary is written to give the host operational commander a short preview of the AFWSEP team's assessment of the weather unit's capability to support the mission. Remarks should include the unit rating. List items not appropriate as observations or discrepancies (e.g., items beyond the operational commander's jurisdiction).

5.4.2. Report Format Section II, WIIs/SIIs. Describe the results of evaluation of WIIs/SIIs. The narrative should state the WII/SII evaluated, the level of the WII/SII (USAF/XOW, AFWA, MAJCOM, or site specific), the result of the WII/SII evaluation, and the observation to support the result.

5.4.3. Report Format Section III, Observations.

5.4.3.1. Observations. Observations are procedures, programs, or methods that affect safety, impact operations, or have the potential to affect the mission and/or safety. Observations are non-evaluation items and may be positive or negative. Each observation has an associated discussion and recommendation section as defined below. Observations should clearly state the item and the impact.

5.4.3.1.1. Observation. Briefly state the observation and list the reference, if applicable. Do not include non-operational deviations as observations. Brief these deviations to the personnel/office responsible for resolution.

5.4.3.1.2. Discussion. Describe the observation and why it is an observation. Provide background information and any past history of the same or a similar observation the unit may have previously experienced.

5.4.3.1.3. Recommendation. Suggested course(s) of action. Recommendation(s) must be reasonable and within the scope of the evaluation.

5.4.4. Report Format Section IV, AFWSEP Visit Results.

5.4.4.1. Discrepancies.

5.4.4.1.1. Discrepancy. Briefly state the discrepancy and list the reference. Discrepancies are areas identified that are in violation of Air Force, MAJCOM or facility directives and negatively affect performance, programs, or quality of service. Any sub-area rated marginal or unsatisfactory must be included as a discrepancy. Discrepancies identified that are Air Force or MAJCOM in scope and require resolution above the unit level shall not be used in determining the conformity index for the unit, provided the unit has identified these discrepancies prior to the evaluation. Recurring discrepancies are referred to a higher level, (i.e., MAJCOM) to ensure corrective actions and compliance with instructions. Recurring discrepancies appear in each subsequent evaluation until corrected.

5.4.4.1.2. Discussion. Describe the discrepancy, why it is a discrepancy, background information, and any history of the same or similar discrepancy.

5.4.4.1.3. Recommendation. Suggested course(s) of action. Recommendation(s) must be reasonable and within the scope of the evaluation.

5.4.4.2. Weather Interest Items/Special Interest Items. An evaluation of all HQ USAF/XOW, AFWA/CC, MAJCOM, or locally identified WIIs/SIIs pertaining to the unit will be provided.

5.4.4.3. Exceptional Performers. List exceptional performers and a brief description of the action. Exceptional performers are those individuals who clearly go above and beyond the standards. For example, this could either be through development of an outstanding program or a clearly superior performance on a task evaluation.

5.4.4.4. Overall Rating. Compute the unit rating based on the conformity index as described in **Attachment 3**. MAJCOMs may follow local guidance when computing the unit rating.

5.4.5. Report Format Section V, General Information.

5.4.5.1. Key Individuals Contacted. Include as a minimum: name, rank, and organization/office symbol.

5.4.5.2. Distribution. List all agencies/offices to receive copies of the report and include number of copies to be sent. See example in **Attachment 2**.

5.5. Discrepancy and Negative Observation Closure Process.

5.5.1. AFW Strategic Centers and OWSs.

5.5.1.1. Disposition of discrepancies and negative observations. The evaluated unit will develop an internal plan to correct all discrepancies and negative observations received during an AFWSEP visit. The plan should include fix action, suspense, milestones, etc., to bring the item to closure within 180 days.

5.5.1.2. The evaluated unit will submit their plan (in letter format) to MAJCOM weather Functional Area Managers and HQ AFWA Director of Operations (XO) through appropriate channels describing corrective actions for all discrepancies and negative observations within 60 days of the AFWSEP report date.

5.5.1.3. For any item(s) corrected prior to submitting the plan, the evaluated unit will describe the action taken and recommend closure.

5.5.1.4. MAJCOM weather Functional Area Managers and HQ AFWA/XO will evaluate the plan and corrective actions and recommend changes where needed. HQ AFWA/XO is the closure authority for AFW strategic centers and OWSs.

5.5.1.5. HQ AFWA/XO will notify AFW strategic centers and OWSs as to the disposition of each item.

5.5.2. Weather Squadrons/Combat Weather Teams/Operating Locations will follow MAJCOM policy for disposition of discrepancies and negative observations.

5.5.2.1. (Added-AMC) Operations support squadrons will provide written status reports to AMC/DOW NLT the 15th of each month until all discrepancies or negative observations have been corrected and AMC/DOW has approved the closing of each item.

ROBERT H. FOGLESONG, Lt General, USAF
DCS/Air & Space Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 15-1, *Atmospheric and Space Environmental Support*

AFI 10-229, *Responding to Severe Weather Events*

AFMAN 15-111, *Surface Weather Observations*

AFI 15-114, *Weather Support Evaluation*

AFMAN 15-124, *Meteorological Codes*

AFI 15-128, *Aerospace Weather Operations – Roles and Responsibilities*

AFMAN 15-129, *Aerospace Weather Operations – Processes and Procedures*

Abbreviations and Acronyms

AFI—Air Force Instruction

AFP—Analysis and Forecast Program

AFPD—Air Force Policy Directive

AFW—Air Force Weather

AFWA—Air Force Weather Agency

AFWSEP—Air Force Weather Standardization and Evaluation Program

AIREP—Air Report

ASOG—Air Support Operations Group

ATC—Air Traffic Control

CC—Commander

CI—Conformity Index

CWT—Combat Weather Team

DO—Director of Operations

DRU—Direct Reporting Unit

FRN—Forecast Reference Notebook

HQ—Headquarters

LIDS—List of Itemized Discrepancies

MAJCOM—Major Command

METSAT—Meteorological Satellites

NAF—Numbered Air Force

NCOIC—Non-Commissioned Officer-in-Charge

OCR—Office of Collateral Responsibility

OG—Operations Group

OP—Operational Area

OP-RI—Operational Rating Index

OPR—Office of Primary Responsibility

OWS—Operational Weather Squadron

PDO—Publishing Distribution Office

PMSV—Pilot to Metro Service

PIREP—Pilot Report

PR—Process Review Area

PR-RI—Process Review Rating Index

RCS—Report Control Symbols

RI—Rating Index

WII/SII—Weather Interest Item/Special Interest Item

WS—Weather Squadron

XO—Director of Operations

XOPS—Standards and Evaluation Branch

Terms

Conformity Index—The sum of the OP-RI and the PR-RI equals the CI.

Discrepancy Sub-Area—Areas identified that are in violation of Air Force, MAJCOM or facility directives and negatively affect performance, programs, or quality of service.

LIDS—List of individual evaluation items not in compliance with governing directives.

Observation—Procedures, programs, or methods that affect safety, impact operations, or have the potential to affect the mission and/or safety. Observations are non-evaluation items and may be positive or negative.

Operational Rating Index—The rating index in the operational area multiplied by the weighting factor of 50%.

Process Review Rating Index—The rating index in the process review area multiplied by the weighting factor of 50%.

Rating Index—Computed for all areas and sub-areas (points earned divided by total available points).

Weather Interest Item/Special Interest Item—A specific issue or item identified by HQ USAF/XOW, AFWA/CC, or MAJCOMs that requires separate evaluation at the unit. Typically, these items are class discrepancies or observations.

Attachment 2

AFWSEP SAMPLE REPORT

FOR OFFICIAL USE ONLY

UNITED STATES AIR FORCE

AIR FORCE WEATHER STANDARDIZATION AND EVALUATION PROGRAM REPORT

Bolling AFB, DC 01-05 January 2000

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AIR FORCE WEATHER STANDARDIZATION AND EVALUATION (AFWSEP)
VISIT REPORT

SECTION I - WEATHER TECHNICAL SUPPORT

PURPOSE AND SCOPE: This evaluation was conducted to assess the quality and adequacy of AFW technical support for operations at Bolling AFB, DC. The results of the evaluation are based on compliance with USAF standards, as well as USAF, MAJCOM, and local procedural policies/guidance. It includes an assessment of the unit's technical capabilities and procedures.

AFW SETTING: Bolling AFB is the home of the 11th Wing. Aircraft assigned to Bolling AFB include C-5s, C-141s, and C-17s. The weather unit supports around-the-clock, worldwide strategic airlift missions.

EXECUTIVE SUMMARY: A comprehensive AFWSEP visit was performed in accordance with AFI 15-180 on weather operations at the Bolling AFB weather unit. Based on an evaluation of technical capabilities, the weather unit is rated as Satisfactory.

Observations and discrepancies if any, identified during the visit are explained in Sections III and IV of this report.

SECTION II - WEATHER INTEREST ITEMS/SPECIAL INTEREST ITEMS

Weather Support Evaluation Program

SECTION III - OBSERVATIONS

1. POSITIVE OBSERVATION: Internet Integration

DISCUSSION: Weather specialists actively integrated a multitude of internet data types into the meteorological watch, flight weather briefing, and forecast preparation processes. Acquired data was used to brief radar loops to aircrews during a convective outbreak while the unit's Doppler radar was inoperative. This data was also used to make forecast model comparisons, and provide supplemental graphic and alphanumeric data to weather specialists. The exploitation of acquired Internet data enhanced the support the unit provided to its customers.

2. NEGATIVE OBSERVATION: Air Traffic Control **(**ATC) Familiarization Training Program

DISCUSSION: The weather unit’s ATC training program is out of date. It refers to an obsolete weather data code that was replaced in 1 July 1996. If ATC personnel continue to receive training with outdated information, confusion may ensue and flight safety could be degraded.

SECTION IV - AFWSEP VISIT RESULTS

1. Process Review Area

Nine Process Review Sub-Areas were evaluated, with two sub-areas rated below standards (Sat). One sub-area was rated Unsatisfactory (below 60%) and is annotated with an asterisk (*). Five sub-areas were

rated Excellent and one sub-area was rated Outstanding. Overall, the process review area was rated Satisfactory.

(1) DISCREPANCY SUB-AREA: Observing Processes (PR Sub-Area #1) (AFMAN 15-111, Ch 6)

DISCUSSION: The current weather station visibility chart does not list visibility marker heights (e.g., ATC tower, water tower, etc.). Additionally, no visibility chart has been developed for the alternate observing site. Local observation format content, dissemination, and back-up procedures have not been coordinated with local customers and are not included in the weather support document.

IMPACT: With incomplete visibility charts, vital visibility values cannot be determined and inaccurate weather observations may result. Uncoordinated weather support may result in base agencies not being aware of significant weather conditions. Finally, the lack of a sound observing seminar program can lead to increased errors during seasonal transition periods, possibly affecting flight safety.

RECOMMENDATION: Station leadership must update and create visibility charts to include object heights. Station management also needs to coordinate observing weather support and develop a viable observing seminar program that will ensure quality observing support.

**(2) DISCREPANCY SUB-AREA: ***Training (PR Sub-Area #10) (AFM 15-129, Ch 2 & Ch 10)

DISCUSSION: The weather pattern recognition approach to forecasting has not been integrated into training processes. No formalized seminar program exists to prepare for the upcoming season's weather challenges and the forecast review program is nonexistent.

IMPACT: Unit personnel are receiving minimal technical guidance to improve their forecast performance and understanding of meteorology. Additionally, potential learning situations may not be exploited which could improve the technical quality of the weather support provided to the customer.

RECOMMENDATION: Weather station leadership must further develop weather pattern recognition guidance and make it a key ingredient of the forecast program. Unit leadership needs to establish a forecast review program that keys on learning from significant weather events. Leadership also needs to put more emphasis on a viable and formalized seminar program which will ensure weather specialists are better prepared for upcoming seasonal weather challenges.

2. Operational (OP) Area

Nine Operational Sub-Areas were evaluated, with two sub-areas rated below standards. Three sub-areas were rated Excellent and two sub-areas were rated Outstanding. Overall, the Operational Area was rated Excellent.

(1) DISCREPANCY SUB-AREA: Take Observations (OP Sub-Area #1) (AFM 15-111, Ch 2, 5, & 6)

DISCUSSION: Weather specialists determined visibility values from a location other than the designated observation point and failed to take the required elements in surface observations. Additionally, personnel were not observing winds in relation to magnetic north.

IMPACT: The ineffective manner in which the weather personnel currently perform their duties presents a significant risk to flight safety and may hinder accomplishment of local resource protection activities.

RECOMMENDATION: Unit leadership needs to provide immediate additional training to weather personnel on how to: (a) take a representative observation, (b) correctly determine visibility values, and (c) correctly observe wind elements. Unit leaders need to follow up with critical task evaluations to assess training effectiveness.

(2) DISCREPANCY SUB-AREA: Radar (OP Sub-Area #8) (AFMAN15-129, Ch 7 & Radar QTP)

DISCUSSION: Weather specialists were not knowledgeable of the basic principles of Doppler Radar theory. Additionally, personnel were not proficient operating the radar equipment.

IMPACT: Failing to understand the basic principles of Doppler and radar theory combined with lack equipment proficiency poses a major safety hazard to flight and ground operations.

RECOMMENDATION: Unit leadership must ensure all weather specialists are properly trained on all aspects of the radar program. Unit leaders need to follow up with critical task evaluations to assess training effectiveness.

3. Weather Interest Item/Special Interest Items

Weather Support Evaluation Program. The unit is well on its way to implementing the weather support evaluation program. Unit leadership has already developed and implemented a program to track overall unit forecast skill for the ceiling/visibility category at times identified by HQ USAF/XOW.

4. Exceptional Performers

(1) SSgt John F. Smith - SSgt Smith put together an excellent tactical mission execution forecast program. He is tactically oriented and ensures unit personnel are fully capable to perform their mobility mission.

(2) A1C John G. Smith - Through his enthusiasm and initiative, A1C Smith noticed a disparity in the cloud height sensor and the observed cloud heights. He used a tactical cloud height measuring device and then immediately informed the Operational Weather Squadron of his current observed conditions.

5. Overall Rating

Satisfactory

SECTION V - GENERAL INFORMATION

1. Key Individuals Contacted

(1) Col John A. Smith, 11th Operations Group Commander

(2) Lt Col John B. Smith, 11th Operations Support Squadron Commander

(3) Maj John C. Smith, 11th OSS Weather Flight Commander

(4) MSgt John D. Smith, 11th OSS Weather Flight Station Chief

(5) SSgt John E. Smith, 11th OSS N-TFS System Manager

(6) SSgt John F. Smith, 11th OSS WSR-88D Manager

2. Distribution

Organization	Copies

OG/CC (or ASOG/CC)	1
OSS/CC	4
AFWA/CC	1
HQ USAF/XOW	1
HQ AFMC/DOW	1
HQ AETC/DOYW	1
HQ AMC/DOW	1
HQ PACAF/DOW	1
HQ AFSPC/DOOW	1
HQ ACC/DOW	1
HQ USAFE/DOW	1
HQ AFRC/DONA	1
HQ AFSOC/DOW	1
HQ ANG/DOOS	1
AFCCC/CC	1
AFCWC/CC	1

AFWSEP SCORE SHEET

UNIT: Bolling AFB, DC DATE: 01 – 05 Jan 2001

Process Review (PR) Area				
SUB-AREA	TOTAL POSSIBLE POINTS (A)	TOTAL POINTS CORRECT (B)	B/A % (C)	**SUB-AREA SCORE**
1. OBSERVING PROCESSES	16	10	63%	Marginal
2. AFP - ANAL AND FORECASTING	14	12	86%	Excellent
3. AFP – GENERATION AND DISSEM	0	0	0	
4. METWATCH	19	16	84%	Excellent
5. MEFP	21	20	95%	Outstanding
6. PMSV/PIREPs/AIREPs	16	14	88%	Excellent
7. ADMIN PLANS, PROGS, STAFF SUP	22	16	73%	Satisfactory
8. METEOROLOGICAL EQUIPMENT	16	14	88%	Excellent
9. WEATHER COMMUNICATIONS	11	8	73%	Satisfactory
10. TRAINING	17	10	59%	Unsatisfactory
11. MAJCOM UNIQUE				

TOTAL	152	120	78.9%	**Satisfactory**

PR-RI = Total (C) X .50 = 39.4%

Operational (OP) Area

SUB-AREA	TOTAL POSSIBLE POINTS (A)	TOTAL POINTS CORRECT (B)	B/A % (C)	**SUB-AREA SCORE**
1. TAKE OBSERVATIONS	19	12	63%	Marginal
2. ENCODE/DISSEM OBS	18	16	89%	Excellent
3. EQUIPMENT OPERATION	14	12	86%	Excellent
4. ANAL AND FORECAST PROGRAM	18	13	72%	Satisfactory
5. METWATCH & RESOURCE PROT.	15	15	100%	Outstanding
6. MEF	23	20	87%	Excellent
7. PMSV/PIREPs/AIREPs	21	20	95%	Outstanding
8. RADAR	19	13	68%	Marginal
9. METSAT	20	15	75%	
10. MAJCOM UNIQUE				

TOTAL	167	136	81.4%	**Excellent**

OP-RI = Total (C) X .50 = 40.7%

	PR-RI	**+ OP-RI**	**= CI**	**Any sub-area Marginal or Unsatisfactory**	**UNIT RATING**
CONFORMITY	**39.4**	**40.7**	**80.1**	**YES**	**SATISFACTORY**
INDEX (CI)					

Attachment 3

COMPUTING INDICES

A3.1. Definitions:

A3.1.1. Rating Index (RI). Each sub-area will be rated using the appropriate evaluation items. The RI of any sub-area is determined by the ratio of the number of correct evaluation items divided by the total number of applicable items in the sub-area. Any sub-area rated Marginal or Unsatisfactory will affect the overall rating.

A3.1.1.1. Process Review Area – The RI for the process review area is determined by the ratio of the number of correct evaluation items divided by the total number of applicable items.

A3.1.1.2. Operational Area - The RI for the operational area is determined by the ratio of the number of correct evaluation items divided by the total number of applicable items.

A3.1.2. Process Review Rating Index (PR-RI) – A process review rating index (PR-RI) will be based on the process review RI and a weighting factor (50%).

A3.1.3. Operational Rating Index (OP-RI) - An operational rating index (OP-RI) will be based on the operational RI and a weighting factor (50%).

A3.1.4. Conformity Index (CI) - Sum of the PR-RI and OP-RI. For example, if Bolling AFB received a PR-RI of 39.8 and an OP-RI of 40.6 the CI would be:

CI = PR-RI + OP-RI = 39.4 + 40.7 = 80.1

This equates to an Excellent unit rating. However, if any sub-area was rated Unsatisfactory the unit rating would be Satisfactory.

A3.2. Scoring:

The unit rating is:	**if:**	**and:**
OUTSTANDING	CI GTE 90	No sub-area LT Satisfactory
EXCELLENT	CI GTE 80 but LT 90	No sub-area LT Marginal
SATISFACTORY	CI GTE 70 but LT 80	
MARGINAL	CI GTE 60 but LT 70	
UNSATISFACTORY	CI LT 60	

NOTE: If a unit has a sub-area rated Marginal, then the highest overall unit rating possible is Excellent. If a unit has a sub-area rated Unsatisfactory, then the highest overall unit rating possible is Satisfactory.

Attachment 4

AFWSEP EVALUATION ITEMS

Table A4.1. Process Review Evaluation Items.

SECTION PR1: OBSERVING PROCESSES Total items this section: (S) Strategic Center: 0 (O) Operational Weather Squadron: 0 (W) WS/WF/DET/OL: 16 **Note:** All references are from AFMAN 15-111 unless otherwise stated	
Item	Reference
PR1.1. (W) Has the unit established a Cooperative Weather Watch (CWW) and coordinated requirements, to include tower visibility, with ATC or other appropriate agencies and documented them in the weather support document?	Paras 1.7.4, 1.7.5.3 & 1.7.5.3.2
PR1.2. (W) Has the unit established a location where visual evaluation of the various elements of an observation are evaluated?	Para 2.3.3
PR1.3. (W) Has the unit established an alternate observing site (AOS), if required?	Para 2.3.4
PR1.4. (W) If an alternate observing site is required, have the continued support requirement(s) for the AOS been coordinated and documented in the weather support document?	Para 2.3.4
PR1.5. (W) Has the unit designated a single timepiece as the standard clock and does the unit conduct time checks against the US Naval Observatory master clock at a frequency not to exceed 6 hours? Limited duty units will conduct a time check within 1 hour of opening, not to exceed every 6 hours thereafter.	Para 2.3.5
PR1.6. (W) Are all applicable SPECI and LOCAL observation criteria posted and maintained in a SOP or a quick reference file available for immediate reference?	Para 2.4.4
PR1.7. (W) Does SPECI/LOCAL criteria match the FLIPs and other guidance?	Para 2.4.4, AFMAN 15-129, Para 4.2.3.3
PR1.8. (W) Has additional SPECI/LOCAL weather criteria requirements been coordinated and documented in the weather support document?	Paras 2.8.6 & 2.8.7
PR1.9. (W) Has the unit ensured local sensor change procedures are coordinated with ATC and documented in the weather support document?	Para 2.11.3
PR1.10. (W) Does the unit have the latest FAA Contractions Manual, FAA Order 7340.1, and the International Cloud Atlas, Vol. II or Cloud Types for observers available for use?	Paras 3.12.1.1 & 3.12.2.1.5.1
PR1.11. (W) Has the unit included local dissemination procedures, form, and format in the weather support document?	Paras 4.3 & 4.7

Item	Reference
PR1.12. (W) Has the unit established priorities and procedures to follow for local dissemination of observations by voice relay?	Para 4.7.4
PR1.13. (W) Does the local magnetic variation match the FLIPs?	Para 5.3.1.2
PR1.14. (W) Does the unit maintain and post current visibility charts and aids for the primary observing site and the AOS, if required?	Para 6.3.1.3
PR1.15. (W) Does the unit have an established barometry program?	Para 10.3.1
PR1.16. (W) Does the unit have procedures for reporting earthquake occurrences?	Para 13.5.1

SECTION PR2: AFP – ANALYSIS AND FORECAST PROCESSES

Total items this section:

(S) Strategic Center: 12 (O) Operational Weather Squadron: 26 (W) WS/WF/DET/OL: 14

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
PR2.1. (S, O, W) Does the unit have procedures to use standard WMO/MIL-STD meteorological symbols, line types, color representation, symbology, and isopleths on all graphic products?	Paras 2.4.3, 2.5.1.2 & Attach 3
PR2.2. (S) Does AFWA have procedures to depict frontal positions, location of pressure systems centers and areas of precipitation; including type of precipitation on the synoptic scale surface analyses for the entire globe?	Paras 2.4.3 & 2.5.1.3.1
PR2.3. (O) Does the OWS have procedures to depict, at a minimum, the following features: frontal positions, isobars at 4-millibar (mb) intervals, location of pressure system centers and areas of precipitation to include type and intensity of precipitation on the mesoscale level surface analyses for its AOR?	Paras 2.4.3 & 2.5.1.3.2
PR2.4. (O) Does the OWS have procedures to ensure the surface analysis is made available to all CWTs supporting military operations in the AOR?	Para 2.5.1.3.2
PR2.5. (S, O) Have procedures been established for weather analyses to maintain continuity of major weather features over its lifecycle?	Paras 2.4.3, 2.5.1.3.4 & 2.5.1.4.2.2
PR2.6. (S, O) Have procedures been established for weather analyses to maintain vertical and horizontal consistency with other weather data?	Paras 2.4.3, 2.5.1.3.4 & 2.5.1.4.2.2
PR2.7. (W) Do CWTs have procedures to visually integrate real-time surface weather observations, radar, satellite imagery and data from other sources with AFWA and OWS surface analyses?	Paras 2.4.3.2 & 2.5.1.3.5
PR2.8. (S) Does AFWA have procedures to produce a standard, twice daily, upper-air analysis package depicting major weather systems and the large scale circulation pattern, and a hemispheric long wave pattern analysis?	Paras 2.5.1.4.1 – 2.5.1.4.1.2 & Table 2.1
PR2.9. (S) Does AFWA have procedures to perform and provide a separate, twice daily, severe weather analysis for the Continental United States (CONUS)?	Paras 2.5.1.4.1.3, 2.5.1.6.1 & Table 2.2

Item	Reference
PR2.10. (S) Does AFWA have procedures to generate a global Severe Weather Threat Assessment?	Para 2.5.1.4.1.3
PR2.11. (O) Does the OWS have procedures to produce a twice daily, synoptic-scale to mesoscale analysis of the standard upper-air levels depicting synoptic and mesoscale weather features in its AOR?	Paras 2.5.1.4.2 & 2.5.1.4.2.1
PR2.12. (O) Are deviations from standard OWS upper-air analysis package explained and documented in the AFP?	Para 2.5.1.4.2.2
PR2.13. (W) Do CWTs have procedures to visually integrate real-time pilot reports, radar, satellite imagery and local data, along with AFWA and OWS upper air analyses, to determine the location, movement and development of weather features?	Paras 2.4.3.2 & 2.5.1.4.3
PR2.14. (S, O, W) Does the unit have procedures to use upper air sounding plots and analyses or automated tools to plot and analyze raw radiosonde data?	Para 2.5.1.5
PR2.15. (O) Does the OWS have procedures to use AFWA's severe weather analysis package for the CONUS?	Para 2.5.1.6.2
PR2.16. (O) Do OWSs Outside CONUS (OCONUS) and OWSs with OCONUS AORs have procedures to perform a region-tailored severe weather analyses needed to provide resource protection to supported units?	Para 2.5.1.6.3 & Table 2.2
PR2.17. (O) Does the OWS have procedures to analyze METSAT imagery, using standard weather representations and symbols, twice daily?	Para 2.5.1.7.3, Table 2.4 & Attach 3
PR2.18. (W) Does the CWT have procedures to incorporate METSAT analyses and imagery into a briefing tool?	Para 2.5.1.7.4
PR2.19. (O) Does the OWS have procedures to notify the CWT when they detect a possible radar signature, indicating severe weather?	Paras 2.4.3.2 & 2.5.1.8.2
PR2.20. (W) Does the CWT have procedures to issue a WW and notify the OWS when they detect a possible radar signature, indicating severe weather?	Paras 2.4.3.2 & 2.5.1.8.3 , 3.2.4.3.4 & 3.2.4.3.4.1
PR2.21. (O) Does the OWS have procedures to evaluate NWP data that leads to the selection of the "model of consistency"?	Paras 2.4.3.2 – 2.4.3.4, 2.5.1.9.1 & 2.5.1.9.4 – 2.5.1.9.4.7
PR2.22. (O) Does the OWS have procedures to verify, initialize, and check the model for trends as soon as possible after data receipt?	Para 2.5.1.9.4.6
PR2.23. (O) Does the OWS have procedures to provide a discussion that indicates the model of consistency and its adjustments?	Para 2.5.1.9.4.7
PR2.24. (O) Does the OWS have local procedures, checklists, and tools to determine weather regimes found in the AOR?	Paras 2.4.3.1 & 2.5.1.10
PR2.25. (O, W) Does the unit have procedures to monitor AFWA's space products?	Paras 2.4.3, 2.4.3.3 & 2.5.1.11
PR2.26. (S, O, W) Does the unit have procedures to incorporate the use of climatology along with other tools and techniques into the forecast (MEF) process?	Para 2.5.2.3

Item	Reference
PR2.27. (O, W) Does the Amendment criteria posted in SOPs/AFP match the criteria in the Standard TAF Amendment criteria MOA/WSD?	Paras 2.5.3.5.2, 2.5.3.5.2.3 & Table 2.10
PR2.28. (S, O, W) Has the unit established procedures directing appropriate use of forecast techniques and tools for a given weather regime?	Para 2.5.2.5.1.2
PR2.29. (S, O, W) Does the unit have worksheets or checklists designed for its operations, weather regimes, and products issued?	Paras 2.5.2.6.1 – 2.5.2.6.4
PR2.30. (O, W) Has the unit integrated information from FRNs into their AFP and MEFP?	Para 2.5.2.7
PR2.31. (O,W) Do FRNs contain the minimum required items?	Para 2.5.2.7.1
PR2.32. (O) Does the OWS develop and maintain paper or electronic FRNs for each CWT and other military air and ground locations in their AOR?	Para 2.5.2.7.2
PR2.33. (W) Does each CWT have a copy of the FRN for their location and alternate airfields, and/or maneuver areas routinely used by supported units?	Para 2.5.2.7.2
PR2.34. (O) Do OWS personnel review the FRNs seasonally for forecast application updates?	Para 2.5.2.7.3
PR2.35. (S, O, W) If required, have procedures/processes been developed to assist personnel to understand and apply space weather forecasts to the supported units' operations?	Paras 2.4.3, 2.4.3.3 & 2.5.2.8

SECTION PR3: AFP – GENERATION AND DISSEMINATION PROCESSES

Total items this section:

(S) Strategic Center: 11 (O) Operational Weather Squadron: 18 (W) WS/WF/DET/OL: 0

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
PR3.1. (S, O) Does the unit have an established production cycle?	Paras 2.5.3, 2.5.3.5 & 2.5.3.5.3.2
PR3.2. (O) Does the OWS post or disseminate space weather products for the AOR?	Para 2.5.3.5
PR3.3. (O) Does the OWS display a complete list of all routine products and bulletins on its web page?	Paras 2.5.3.5 & 2.5.3.5.1
PR3.4. (O) Are OWS produced bulletins IAW AFMAN 15-129?	Para 2.5.3.5.1
PR3.5. (O) Has the OWS coordinated with its supported CWTs to determine TAF issue times based on CWT requirements and production cycle capacity?	Para 2.5.3.5.2.1
PR3.6. (O) Does the OWS have procedures to issue TAFs correctly?	Paras 2.4.3, 2.5.3.5.2.2 – 2.5.3.5.2.2.2

Item	Reference
PR3.7. (O) Does the OWS have procedures to amend TAFs as required?	Paras 2.4.3, 2.5.3.5.2.3, & Tables 2.10 & 2.11
PR3.8. (O) Does the OWS generate products listed in Tables 2.12, (2.13 as required) and 2.14?	Para 2.5.3.5.3.1 & Tables 2.12 – 2.14
PR3.9. (O) Does the unit have procedures to correctly issue MOAFs?	Paras 2.4.3 & 2.5.3.5.6 & Table 2.15
PR3.10. (O) Does the OWS have procedures to amend MOAFs as required?	Paras 2.4.3, 2.5.3.5.8 & Table 2.16
PR3.11. (S) Does AFWA produce a set of 6 – 10 day forecast visualizations based on the 12Z data set once a day?	Para 2.5.3.6.2
PR3.12. (S) Does AFWA/SPACE issue daily extended outlook products: the daily F10.7 cm radio flux, the 90-day mean of F10.7 cm flux, 45-day prediction of the F10.7 cm radio flux and the Ap Geomagnetic Index?	Para 2.5.3.6.3
PR3.13. (O) Does the OWS produce once-daily visualizations depicting forecasted synoptic-scale surface weather features shown in Table 2.17 for day 4 and 5 from data time using NWP output?	Para 2.5.3.6.4 & Table 2.17
PR3.14. (O) Does the OWS ship products (Table 2.12) to AFWA?	Paras 2.4.4.1 & 2.5.4.2.1
PR3.15. (S) Does AFWA produce and amend composite worldwide products?	Paras 2.4.3 & 2.5.4.2.1
PR3.16. (O) Does the OWS post a summary of its issued watches, warnings and advisories to a NIPR/SIPRNET web page?	Para 2.5.4.2.2
PR3.17. (S, O) Does the unit have procedures to continuously METWATCH aerospace weather conditions in its AOR and compare observed weather conditions to the forecast conditions?	Paras 2.4.3.2 & 2.5.5.1
PR3.18. (S) Does AFWA have procedures to amend when forecast conditions (for products listed in Tables 2.6, 2.7, 2.10 - 2.16) are out of category/threshold?	Paras 2.4.3.2 & 2.5.5.2
PR3.19. (O) Does the OWS have procedures to amend forecast products (Tables 2.12 [2.13 as RQD] & 2.14) according to Table 2.18?	Paras 2.4.3.2 & 2.5.5.3
PR3.20. (S, O) Have strategic weather centers and OWS production or operations centers developed procedures for the lead meteorologist to review products and perform a quick-look technical verification of products to assess the [horizontal] accuracy of products issued during the work shift?	Paras 2.4.3.5, 2.4.4.1, 2.7.1, 2.7.2 & 2.7.3
PR3.21. (O) Does the OWS have procedures for the lead meteorologist to determine the synoptic situation for the day, identify the regional forecast problems, and conduct weather discussions with shift personnel to coordinate daily forecast reasoning and product development?	Paras 2.4.3.5, 2.4.4.1 & 2.7.4

Item	Reference
PR3.22. (S) Have procedures been established for AFWA/CSFO to conduct a telecon at least once per day for severe weather analysis, potential, and the forecast?	Paras 2.4.3.2 & 2.9.1.1
PR3.23. (S) Does AFWA/CSFO produce and post a hemispheric hazards discussion product to JAAWIN at least once per day?	Paras 2.4.3.2 & 2.9.1.1.1
PR3.24. (S) Does AFWA produce and post a NWP discussion/ bulletin to JAAWIN at least once per day?	Paras 2.4.3.2 & 2.9.1.1.2
PR3.25. (S) Have procedures been established for AFWA/SPACE to issue discussion bulletins that explain significant events and trends of solar activity, space weather, and geomagnetic activities?	Paras 2.4.3.2 & 2.9.1.2
PR3.26. (O) Has the OWS developed standardized regional analysis/forecast meteorological discussion products and made these discussions and upper-air analysis packages available to supported CWTs in advance of any scheduled verbal meteorological discussion?	Para 2.9.1.3

SECTION PR4: METEOROLOGICAL WATCH AND RESOURCE PROTECTION PROCESSES

Total items this section:

(S) Strategic Center: 10 (O) Operational Weather Squadron: 22 (W) WS/WF/DET/OL: 19

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
PR4.1. (S, O, W) Has the unit identified all geographical areas, information, products, and services requiring METWATCH?	Para 3.1.2.1
PR4.2. (S, O, W) Has the unit defined the minimum set of air and ground mission-limiting aerospace weather parameters to METWATCH?	Para 3.1.2.2
PR4.3. (S, O, W) Has the unit established the frequency and duration in which air and ground mission-limiting aerospace parameters will be checked?	Para 3.1.2.3
PR4.4. (S, O, W) Has the unit outlined the actions to be taken when forecast conditions change during the METWATCH?	Para 3.1.2.4
PR4.5. (S, O, W) Has the unit specified what units are contacted with the primary and back-up methods of dissemination?	Para 3.1.2.4
PR4.6. (O, W) Has the unit issuing a MEF developed procedures to perform a MISSIONWATCH during the entire mission?	Para 3.1.3
PR4.7. (O, W) Has the unit issuing a MEF defined who will and how to contact mission director or commander if significant changes occur or the MEF must be amended?	Para 3.1.3.2
PR4.8. (S, O, W) Has the unit identified the appropriate types of METSAT imagery (IR, VIS, WV, microwave) and satellite data (space environmental sensors) used to perform the METWATCH function?	Para 3.1.4.1

Item	Reference
PR4.9. (S, O, W) Has the unit integrated radar-derived products into their MET-WATCH procedures?	Para 3.1.4.2
PR4.10. (S, O, W) Has the unit specified what data sources are used to monitor the weather?	Para 3.1.4.3
PR4.11. (O) Has the unit documented the WATCH and WW criteria in a formal agreement with each supported CWT in its AOR?	Para 3.2.4.2.1
PR4.12. (O, W) Has the unit documented all deviations from the standard set (Table 3.1) of WATCH and WW criteria in appropriate WSDs?	Paras 3.2.4.2.1, 3.2.4.2 & Table 3.1
PR4.13. (O, W) Does the unit's WATCH & WW dissemination procedures ensure no more than three confirmation calls are made?	Paras 3.2.4.2.3
PR4.14. (O) Are documented lead-times for WATCHs and WWs consistent with AFMAN 15-129, Table 3.2 and/or MOA/WSD and WAs with customer requirements as stated in a MOA?	Paras 3.2.4.2.5, 3.2.5.1 & Table 3.2
PR4.15. (O, W) Has the unit published details of the unit's WATCH, WW and WA processes in the appropriate WSDs?	Para 3.2.5.1.3, Table 3.3 & 3.7
PR4.16. (O) Are unit WATCH, WW, and WA procedures consistent with Tables 3.4 & 3.7?	Paras 3.2.4.2.7, 3.2.5.1.3. Tables 3.4 & 3.7
PR4.17. (O) Has the unit described in the appropriate WSDs specific details of the dissemination and notification procedures (including back-up) for all WATCHs and WWs to the customer or designated command and control element on the installation?	Paras 3.2.4.2.3., 3.2.4.2.8, 3.2.4.3, 3.2.4.3.3 & 3.2.5.2
PR4.18. (O, W) Does the unit accurately document WATCHs, WWs and WAs?	Paras 3.2.6.1, 3.2.6.2, Attachs 4 & 5
PR4.19. (O, W) Does the unit verify their Weather Watches, Warnings and Advisories to measure its capability and identify procedural or training deficiencies?	Para 3.2.7
PR4.20. (S, O, W) Has the unit developed a Severe Weather Action Plan (SWAP) to ensure sufficient personnel are available during potential/actual severe weather events or during meteorological/operational events critical to mission success?	Para 3.2.8
PR4.21. (O) Does the CONUS OWS's SWAP include participation in AFWA's Severe Section's daily severe weather telecon, as appropriate?	Para 3.2.8.4
PR4.22. (W) Do unit procedures ensure consistency with OWS-issued WATCHs, WWs, and WAs by conveying the products verbatim to their customers in their MEFs?	Para 3.2.4.3 & 3.2.11
PR4.23. (S, O, W) Does the unit review, conduct, and document a semi-annual exercise of the SWAP IAW AFI 10-229?	Para 3.2.8.7
PR4.24 (W) Has the unit developed procedures to report severe weather events or damage from weather events as defined in AFI 10-229?	Para 3.2.12.1

SECTION PR5: MISSION EXECUTION FORECAST PROCESS
Total items this section:

(S) Strategic Center: 0 (O) Operational Weather Squadron: 0 (W) WS/WF/DET/OL: 21

Note: All references are from AFMAN 15-129 unless otherwise stated. Specialized sections in an OWS and AFWA operate as a CWT and use the MEFP—AFMAN 15-129, Chapter 4.

Item	Reference
PR5.1. (W) Does the MEFP evaluate and apply OWS and/or Strategic center produced aerospace analyses and forecast products to specific missions by integrating their knowledge of the supported customer's weapon system, tactics, and environmental sensitivities?	Para 4.1.1
PR5.2. (W) Does the MEFP integrate the forecaster's understanding of the current aerospace weather situation, perishable data, and their familiarity with local weather effects?	Para 4.1.1
PR5.3. (W) Does the unit use the 12-step approach to develop MEFs and refined each step to provide the best possible support to their customers?	Para 4.1.3.2
PR5.4. (W) Has the unit created detailed procedures on developing the different MEFs used to support their customers?	Para 4.1.2
PR5.5. (W) Has the unit established requirements for MEF updates based on critical, mission-limiting weather thresholds defined by supported customers?	Para 4.1.3.2
PR5.6. (W) Does the MEFP ensure consistency with OWS-issued products?	Para 4.1.3.3
PR5.7. (W) Does the MEFP ensure the units coordinate changes with the supporting OWS if standard and operational thresholds are crossed?	Para 4.1.3.3
PR5.8. (W) Does the MEFP contain the characteristics and weather limitations of each weapon system routinely supported?	Para 4.1.3.4
PR5.9. (W) Does the MEFP include interfacing with customers to get constructive feedback on MEF performance?	Paras 4.1.3.5, 4.1.3.7 & 4.2.1.5
PR5.10. (W) Does the MEFP state the impact weather has on weapons and communications systems routinely supported?	Para 4.1.3.6
PR5.11. (W) Does the MEFP include how to inform home-based supported units on how to receive weather support when all or part of the supported unit deploys without their CWT or weather support?	Para 4.1.3.8.2
PR5.12. (W) Has the CWT provided or arranged for a designated area equipped with the minimum required items configured to allow transient aircrews to contact the supporting OWS and accomplish flight weather MEF briefings?	Paras 4.2.1.3.1, 4.2.1.3.1.1 -4.2.1.3.1.3 & 5.4.1
PR5.13. (W) Has the CWT included information on how to access and use web-based PGS systems in the Instrument Refresher Course (IRC)?	Para 4.2.1.4.3

Item	Reference
PR5.14. (W) Does the CWT have procedures to notify the supporting OWS of any aircraft mishaps or ground mishaps requiring OPREP-3 reporting or local requirements to initiate data-save procedures for OWS-produced products used by CWTs in preparing flight weather briefings?	Para 4.2.1.6
PR5.15. (W) Does the CWT have procedures to save the MEF and associated data and products used in the MEFP?	Para 4.2.1.6.2
PR5.16. (W) Does the unit document all MEF briefings?	Para 4.2.1.8
PR5.17. (W) Does the unit document the minimum mandatory items along with the flight weather MEF?	Para 4.2.1.8
PR5.18. (W) Does the unit document all verbal briefings?	Para 4.2.1.8.3
PR5.19. (W) Does the unit have procedures developed to archive the briefing information?	Para 4.2.1.8.4 & AFMAN 37-139
PR5.20. (W) Does the unit use the DD Form 175-1, or other MAJCOM designated flight weather briefing forms as an outline for presenting the flight weather MEF briefing?	Para 4.2.1.9
PR5.21. (W) Does the unit have procedures to immediately notify its flying customers of [pending] critical flight safety amendments, then notify the OWS when it detects changes before the OWS forecaster?	Paras 2.4.3 & 2.5.3.5.2.4

SECTION PR6: PMSV/PIREPs/AIREPs PROCESSES

Total items this section:

(S) Strategic Center: 0 (O) Operational Weather Squadron: 10 (W) WS/WF/DET/OL: 16

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
PR6.1. (W) Has the unit established written procedures with local customers to ensure that observed flight conditions are passed to the weather unit as PIREPs/ AIREPs?	Para 4.2.1.14.2.2
PR6.2. (O, W) Does the unit have established procedures to ensure individuals transmit all severe PIREPs (UUA) and AIREP Specials (ARS) longline when they contain one or more of the phenomena listed in Table 4.2 or Table 4.3?	Para 4.2.1.14.5.1, Tables 4.2 & 4.3
PR6.3. (O, W) Does the unit have established procedures for PMSV/phone patch operations that include the minimum required instructions?	Paras 4.2.2.1.6 - 4.2.2.1.6.5 & FAA Order 7110.10
PR6.4. (O, W) Do units have procedures to ensure mission significant PIREPs/ AIREPs are communicated to each other?	Para 4.2.2.1.8
PR6.5. (O, W) Does the unit have established procedures to document all PMSV/ phone patch contacts?	Para 4.2.2.1.9
PR6.6. (O, W) Do the documented PMSV/phone patch contacts contain the minimum required entries?	Para 4.2.2.1.9

Item	Reference
PR6.7. (O, W) Does the unit perform and document at least one equipment check each day?	Para 4.2.2.1.10
PR6.8. (O, W) Does the unit log all PMSV equipment outages?	Paras 4.2.2.1.11. & 4.2.2.1.15
PR6.9. (W) Has the unit arranged for monitoring of the PMSV frequency for short-term outages?	Para 4.2.2.1.12
PR6.10. (W) Does the unit have procedures in place for long-term outage notification in Airfield Advisories?	Para 4.2.2.1.14
PR6.11. (W) Do the long-term outage procedures ensure ATC is aware of the outage?	Para 4.2.2.1.14
PR6.12. (O) Does the unit have established procedures to notify all supported units in their AOR of PMSV outages, back-up arrangements, and return-to-service?	Para 4.2.2.1.15
PR6.13. (O, W) Are PMSV back-up procedures documented in the formal agreement between OWS and CWT?	Para 4.2.2.1.16
PR6.14. (W) Has the unit established a system to evaluate their PMSV capabilities?	Para 4.2.2.1.17
PR6.15. (W) Have limiting PMSV factors been documented in a permanent case file, and been forwarded to ATC for publishing in the FLIPs?	Paras 4.2.2.1.17 & 4.2.3.2
PR6.16. (O, W) Does the unit maintain the FLIPs and other required flight weather MEF briefing references?	Para 4.2.3 & Table 4.4
PR6.17. (W) Has the unit ensured its PMSV/phone patch information is correctly described in the applicable FLIPs?	Para 4.2.3.1

SECTION PR7: ADMINISTRATIVE PLANS, PROGRAMS, AND STAFF SUPPORT

Total items this section:

(S) Strategic Center: 17 (O) Operational Weather Squadron: 22 (W) WS/WF/DET/OL: 22

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
PR7.1. (W) Does the unit have the necessary Technical Orders (TOs), operator manuals, and handbooks for all assigned equipment available for deployment?	Para 6.5 & AFMAN 15-111, Para 1.6
PR7.2. (S, O, W) Have AFW units prearranged and documented processes to transfer products and services to designated back-up units following the three-tier order in Table 9.1?	Para 9.2.1 & Table 9.1
PR7.3. (S) Have strategic weather centers developed a back-up plan to continue providing the products and support to the greatest extent possible?	Para 9.3.1

Item	Reference
PR7.4. (O) Has the unit developed a back-up plan to maintain the capability to continue support operations at the OWS or alternate location using guideline in Table 9.1?	Para 9.3.2 & Table 9.1
PR7.5. (S, O, W) Has the unit documented the back-up plan in an appropriate document?	Paras 9.3.3 & 9.4.4
PR7.6. (S, O) Does the plan specify the products and services provided by each designated organization along with detailed contact information?	Para 9.3.3
PR7.7. (S, O) Does the plan outline both short and long-term outages?	Para 9.3.3
PR7.8. (W) Has the unit providing MEF support established back-up capability to provide support to customers from an alternate location or transfer functions to another unit?	Para 9.4.3
PR7.9. (W) Has unit leadership developed written procedures for the alternate location?	Para 9.4.3
PR7.10. (W) Do the unit procedures include notifying the supporting OWS when it moves to its alternate work area?	Para 9.4.4
PR7.11. (S, O) Have units prepared a formal agreement that outlines the back-up support plan for their operations?	Para 9.6
PR7.12. (S) Has the unit provided HQ USAF/XOW with a copy of the back-up agreement?	Para 9.6.1
PR7.13. (O) Has the unit provided their command agency (i.e., MAJCOM, NAF) with a copy of the back-up agreement?	Para 9.6.2
PR7.14. (W) Does the unit have a WSD that states requirements and support responsibilities to all their supported agencies?	Para 11.2.1
PR7.15. (W) Does the WSD cover all areas required by Table 11.1?	Para 11.2.1.2 & Table 11.1
PR7.16. (W) Is the WSD updated/reviewed annually, at a minimum, to ensure the document remains up to date and reflects the current requirements of all supported units?	Para 11.2.1.3
PR7.17. (W) Has the WSD been coordinated with all supported agencies?	Para 11.2.1.3.1
PR7.18. (O) Has the unit jointly developed formal Memorandums of Agreement (MOAs) with CWTs and Reserve Component units within their AOR?	Para 11.2.2
PR7.19. (S, O, W) Are SOPs maintained in their appropriate work-centers?	Para 11.3.1
PR7.20. (S, O, W) If several work-centers have one or more SOPs in common, does the unit maintain a master list with a Table of Contents that cross-references the SOP to its location, and establish unit distribution of those SOPs?	Para 11.3.1
PR7.21. (S, O, W) Are SOPs updated at least annually and as often as necessary to ensure they are current and easy to use and understand?	Para 11.3.1
PR7.22. (S, O, W) Do all unit personnel review applicable SOPs at least annually?	Para 11.3.1

Item	Reference
PR7.23. (S, O, W) Are clearly defined duty priorities displayed in plain view and used as required?	Para 11.3.3
PR7.24. (S, O, W) Has the unit developed shift change/meteorological discussion procedures?	Paras 2.9.1.5 & 2.9.2
PR7.25. (O, W) Have the CWT and/or OWS provided web-based PGS systems access information and procedures to supported units, as required?	Paras 4.2.1.4.2 & 4.2.1.4.3
PR7.26. (O) Does the OWS have procedures to save all applicable data and forecast products when notified of an aircraft mishap?	Para 4.2.1.6.1
PR7.27. (O) Does the OWS have procedures to notify AFWA to save all applicable data and products when notified of an aircraft mishap?	Para 4.2.1.6.1.
PR7.28. (O, W) Has the unit developed procedures to obtain the necessary mission and target data from operators and intelligence personnel to run the TDA program?	Para 4.3.1
PR7.29. (S, O, W) Does the unit implement and manage their QA and Metrics programs IAW AFI 15-114?	Para 12.1
PR7.30. (S, O, W) Does the unit have OTS QA procedures for all support provided to customers?	Para 12.2.1
PR7.31. (S, O, W) Does the unit have ATF QA procedures to evaluate the quality of weather support provided to customers to identify areas that might require additional training or better procedures?	Para 12.2.2
PR7.32. (S, O, W) Does the unit have horizontal QA procedures to check all products on a given day for basic horizontal consistency?	Para 12.2.3

SECTION PR8: METEOROLOGICAL EQUIPMENT, INSTRUMENTATION, AND SENSORS

Total items this section:

(S) Strategic Center: 10 (O) Operational Weather Squadron: 15 (W) WS/WF/DET/OL: 16

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	**Reference**
PR8.1. (S, O, W) Does the unit use the AFW *Doppler Weather Radar* Qualification Training Package (QTP) as the basis for qualification training?	Para 7.2.1
PR8.2. (S, O, W) Has the unit developed procedures for the proper operation and maintenance of radar equipment?	Para 7.2.2
PR8.3. (S, O, W) Has the unit developed procedures for reporting radar equipment outages?	Para 7.2.2.1
PR8.4. (S, O, W) Has the unit developed procedures for trouble shooting, startup, restart, shutdown, etc., as appropriate?	Para 7.2.2.1
PR8.5. (O, W) Do unit procedures ensure personnel operating the radar are aware of the radar's status?	Para 7.2.2.2

Item	Reference
PR8.6. (O, W) Do unit procedures ensure personnel operating the radar are aware of the alert area locations and thresholds?	Para 7.2.2.2
PR8.7. (O, W) Do unit procedures ensure personnel operating the radar are aware of the current Volume Coverage Pattern (VCP) and Routine Product Set (RPS) list?	Para 7.2.2.2
PR8.8. (O, W) Do unit procedures ensure personnel operating the radar are aware of environmental data prior to data interpretation?	Para 7.2.2.2
PR8.9. (O, W) Do unit procedures guide personnel in making optimum use of the RPS lists and VCP for storm interrogation and assist them in choosing the best product to use for a particular forecast regime?	Para 7.2.2.2
PR8.10. (S, O, W) Has the unit developed procedures to print/archive radar imagery for an aircraft mishap, Radar Imagery Reference File (RIRF) and local training?	Para 7.2.3
PR8.11. (S, O, W) Has the unit implemented applicable portions of the program template provided in AFW ECHOES #18, Radar Program?	Para 7.2.4 & ECH-OES #18
PR8.12. (S, O, W) Does the unit maintain the required references needed to conduct an effective Doppler weather radar program?	Para 7.2.4 & ECH-OES #18
PR8.13. (S, O, W) Does the unit use the AFW *Basic Satellite Meteorology* QTP as the basis for qualification training?	Para 7.3.1
PR8.14. (S, O, W) Has the unit developed procedures for the proper operation and maintenance of all METSAT equipment?	Para 7.3.2
PR8.15. (S, O, W) Has the unit developed procedures to print/archive METSAT for an aircraft mishap, METSAT Imagery Reference File (MIRF) and local training?	Para 7.3.3
PR8.16. (W) Has the CWT requested that tactical observing equipment is entered into the Core Automated Maintenance System (CAMS) database and documented in the local maintenance agreement?	Para 7.4.1.2

SECTION PR9: WEATHER COMMUNICATION AND PRODUCT DEVELOPMENT SYSTEMS

Total items this section:

(S) Strategic Center: 11 (O) Operational Weather Squadron: 11 (W) WS/WF/DET/OL: 11

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
PR9.1. (S, O, W) Has unit leadership established standard procedures and system settings the unit will use to support their operations?	Para 8.3
PR9.2. (S, O, W) Has unit leadership appointed a primary/alternate system manager to manage the day-to-day operations of communication and productions systems?	Para 8.3

Item	Reference
PR9.3. (S, O, W) If available, have the primary and alternate system managers attended formal training on the designated equipment?	Para 8.3
PR9.4. (S, O, W) Does the system manager ensure unit personnel remain proficient in equipment operations including back-up systems?	Para 8.3.1.3
PR9.5. (S, O, W) Are the system managers, as a minimum, able to perform the functions listed in Table 8.1?	Para 8.4 & Table 8.1
PR9.6. (S, O, W) Does the unit have the information listed in Table 8.2 available to the NTFS/AMIS users?	Para 8.5 & Table 8.2
PR9.7. (S, O, W) Do NTFS/AMIS trouble shooting procedures require personnel to notify the NTFS/AMIS Help Desk for technical assistance?	Paras 8.6 & 8.9.3
PR9.8. (S, O, W) Has the unit developed local trouble shooting procedures to help personnel determine whether the problem is communications, equipment, or software based?	Para 8.6.1
PR9.9. (S, O, W) Has the unit developed detailed back-up procedures in case of a major system outage?	Para 8.6.2
PR9.10. (S, O, W) Does the unit have procedures to request additional equipment, move existing equipment, or turn in equipment?	Para 8.7
PR9.11. (S, O, W) Has the unit implemented a training program using AFWA-provided initial, follow-on, and recurring training materials for VSAT and T-VSAT?	Para 8.9.2

SECTION PR10: TRAINING

Total items this section:

(S) Strategic Center: 19 (O) Operational Weather Squadron: 21 (W) WS/WF/DET/OL: 17

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
PR10.1. (S, O, W) Has the unit developed a Master Training Plan (MTP) that addresses all training requirements?	Para 10.3.1.1
PR10.2. (S, O, W) Has the unit developed a Master Task List (MTL) that contains line-item tasks identified by duty position?	Para 10.3.1.2
PR10.3. (S, O, W) Has the unit developed a Master Training Outline (MTO) to identify mandatory major training objectives and lesson plans/training checklists?	Para 10.3.1.3
PR10.4. (O) Has the unit developed Lesson Plans (LP) comprehensive enough so that all trainers can provide a baseline level of instruction?	Para 10.3.1.4
PR10.5. (S, O, W) Has the unit developed Training Checklists detailed enough to thoroughly train the items associated with each MTO?	Para 10.3.1.5

Item	Reference
PR10.6. (S, O, W) Do personnel accomplish a written/performance checkride prior to position qualification?	Para 10.3.1.6
PR10.7. (S, O, W) Is an annual recertification accomplished on each individual for each position?	Para 10.3.1.6
PR10.8. (S, O, W) Does the unit conduct CT, as a minimum, on a quarterly basis?	Para 10.3.2
PR10.9. (S, O, W) Does CT include seasonal review of synoptic and mesoscale weather patterns (regimes) applicable to your AOR or theater, to include techniques to predict the type and intensity of weather phenomena associated with each?	Para 10.3.2.1 & AFI 10-229, Para 2.8.5
PR10.10. (S, O, W) Are seminars and lessons learned through forecast reviews part of the CT program?	Para 10.3.2.1
PR10.11. (S, O, W) Does CT include knowledge-based training on seasonal, regional, or topical subjects, and operational checkrides to maintain proficiency on a complex piece of equipment or specific tasks associated with a duty position?	Paras 10.3.2.1, 4.1.3.4.2 & 4.1.3.6.2
PR10.12. (S, O, W) Does CT include reviews of the basics of space weather physics, the current state of space weather support, and impacts of space weather on DoD systems?	Para 10.3.2.1
PR10.13. (S, O, W) Has unit leadership prepared an AI/AO familiarization package and incorporated it into initial and recurring tactical training?	Para 6.3.1
PR10.14. (S, O, W) Has unit leadership developed training scenarios with “canned” data for the major weather regimes in the AI/AO, focusing on weather data types and the various products available in areas, to include space weather and its impacts?	Para 6.3.1
PR10.15. (S, O, W) Does MT include task certification on all aspects of mobility operations and on the tasked tactical weather equipment?	Para 10.3.3.1
PR10.16. (S, O, W) Does MT address the climatology, weather regimes, forecast products and techniques, OWS products/services, weapons systems, and AEF support for contingency locations?	Para 10.3.3.1
PR10.17. (S, O, W) Does MT cover the missions, weapons systems, and weather sensitivities of supported units?	Para 10.3.3.1
PR10.18. (S, O) Do AFWA and OWS work-centers conduct forecast seminars that focus on mission requirements?	Para 10.3.4.1
PR10.19. (S, O) Do the Strategic weather centers and OWSs share locally developed training material (e.g., CT, seminars, reviews & studies, unique MT items) with other AFW units by posting the material on their homepage?	Para 10.3.5
PR10.20. Does the OWS provide theater orientation training programs and include the minimum topics? (O)	Para 10.5.2
PR10.21. (S, O, W) Has the unit developed procedures for the purpose of reviewing forecasts and studies to improve forecast capability and processes?	Para 2.8

Table A4.2. Operational Evaluation Items.

SECTION OP1: TAKE OBSERVATIONS Total items this section: (S) Strategic Center: 0 (O) Operational Weather Squadron: 0 (W) WS/WF/DET/OL: 19 **Note:** All references are from AFMAN 15-111 unless otherwise stated	
Item	**Reference**
OP1.1. (W) Do personnel possess the general knowledge required to "take" an observation?	Para 1.7, 3.1, 3.2 & Ch 2
OP1.2. (W) Are personnel familiar with the local Cooperative Weather Watch agreement?	Para 1.7.5.3
OP1.3. (W) Do personnel observe elements with the greatest amount of change last?	Para 2.4.2
OP1.4. (W) Do personnel evaluate "wind" elements correctly?	Para 3.5 & Ch 5
OP1.5. (W) Do personnel observe winds in relation to magnetic north?	Para 5.3.2.1
OP1.6. (W) Do personnel evaluate "visibility" elements correctly?	Para 3.6 & Ch 6
OP1.7. (W) Are personnel knowledgeable of the visibility observing requirements and practices?	Para 6.3
OP1.8. (W) Do personnel evaluate "present weather" & "obstructions to visibility" correctly?	Para 3.7 & Ch 7
OP1.9. (W) Do personnel know the distance criteria for reporting present weather, obscurations, and other weather phenomena?	Para 3.7.1
OP1.10. (W) Do personnel evaluate the state of the sky correctly?	Para 3.8 & Ch 8
OP1.11. (W) Can personnel determine the proper amount of coverage for each layer?	Para 3.8.1
OP1.12. (W) Do personnel evaluate "temperature" elements correctly?	Paras 3.9, 3.10 & Ch 9
OP1.13. (W) Do personnel evaluate "pressure" elements correctly?	Para 3.11 & Ch 10
OP1.14. (W) Can personnel manually compute SLP, PA, DA (if required) and APP?	Paras 10.3.4 & 10.3.5
OP1.15. (W) Do personnel evaluate elements requiring observational "remarks" correctly?	Para 3.12 & Ch 11
OP1.16. (W) Do personnel measure liquid, freezing, and frozen precipitation correctly?	Para 12.3
OP1.17. (W) Are personnel knowledgeable of "miscellaneous" observation requirements?	Ch 13
OP1.18. (W) Do personnel evaluate required climatological and summary data correctly?	Paras 3.19 – 3.32, Chs 11 & 12
OP1.19. (W) Can personnel "take" an observation from the AOS, or a back-up observation, IAW procedures?	Para 2.3.4

SECTION OP2: ENCODE & DISSEMINATE OBSERVATIONS
Total items this section:

(S) Strategic Center: 0 (O) Operational Weather Squadron: 0 (W) WS/WF/DET/OL: 18
Note: All references are from AFMAN 15-111 unless otherwise stated

Item	Reference
OP2.1. (W) Do personnel affix the proper "time" to the observation?	Para 2.2.2
OP2.2. (W) Do personnel encode "wind" elements correctly?	Para 3.5, Chs 5 & 11
OP2.3. (W) Can personnel encode suspect wind data correctly?	Paras 2.11.1, 3.5.3.1 & Table 11.1
OP2.4. (W) Do personnel encode "visibility" elements correctly?	Para 3.6, Chs 6 & 11
OP2.5. (W) Do personnel encode general "present weather" & "obstructions to visibility" entries correctly?	Para 3.7, Chs 7, 11 & 12
OP2.6. (W) Do personnel encode specific "present weather" codes correctly?	Ch 7
OP2.7. (W) Do personnel encode the state of the sky correctly?	Para 3.8, Chs 8 & 11
OP2.8. (W) Do personnel encode cloud type indicators in the body of the observation and in the remarks section?	Para 3.8 & Ch 11
OP2.9. (W) Do personnel encode "temperature" elements correctly?	Paras 3.9, 3.10, Chs 9 & 11
OP2.10. (W) Do personnel encode "pressure" elements correctly?	Para 3.11, Chs 10 & 11
OP2.11. (W) Do personnel encode APP correctly (based upon manual computation)?	Para 10.2.10
OP2.12. (W) Do personnel encode observational "plain language remarks" correctly?	Para 3.12.1 & Ch 11
OP2.13. (W) Do personnel encode observational "additive data remarks" correctly?	Para 3.12.1 & Ch 11
OP2.14. (W) Do personnel encode "miscellaneous" observations as required?	Ch 13
OP2.15. (W) Do personnel encode climatological, summary, and other required form entries correctly?	Paras 3.19 – 3.32, Chs 11 & 12
OP2.16. (W) Do personnel disseminate observations IAW local and required procedures?	Paras 4.3, 4.7 & 4.8
OP2.17. (W) Do personnel identify which unit transmitted their observation longline and the initials of the individual receiving the data (back-up long-line dissemination)?	Para 4.8.6
OP2.18. (W) Can personnel disseminate an observation from the AOS, or by back-up methods, as required by local procedures?	Para 4.7.5

SECTION OP3: FIXED, BACK-UP AND COMMUNICATIONS EQUIPMENT OPERATIONS
Total items this section:

(S) Strategic Center: 0 (O) Operational Weather Squadron: 0 (W) WS/WF/DET/OL: 14

Note: All references are from AFMAN 15-111 unless otherwise stated

Item	Reference
OP3.1. (W) Do personnel operate and maintain the unit's official timepiece IAW procedures?	Para 2.3.5
OP3.2. (W) Can personnel operate primary wind equipment IAW the proper T.O./ handbook?	Para 5.4 & AFMAN 15-129, Para 7.4.2.1
OP3.3. (W) Can personnel operate back-up wind equipment IAW the proper T.O./ handbook?	Para 5.4 & AFMAN 15-129, Paras 7.4.1.1 & 7.4.1.2
OP3.4. (W) Can personnel operate primary RVR/visibility equipment IAW the proper T.O./handbook?	Para 6.5 & AFMAN 15-129, Para 7.4.2.1
OP3.5. (W) Can personnel operate primary precipitation measuring equipment IAW the proper T.O./handbook?	Ch12, AFMAN 15-129, Para 7.4.2.1
OP3.6. (W) Can personnel operate back-up precipitation measuring equipment IAW the proper T.O./handbook?	Ch 12, AFMAN 15-129, Paras 7.4.1.1 & 7.4.1.2
OP3.7. (W) Can personnel operate primary cloud height measuring equipment IAW the proper T.O./handbook?	Para 8.4, AFMAN 15-129, Para 7.4.2.1
OP3.8. (W) Can personnel operate back-up cloud height measuring equipment IAW the proper T.O./handbook?	Para 8.4, AFMAN 15-129, Paras 7.4.1.1 & 7.4.1.2
OP3.9. (W) Can personnel operate primary temperature measuring equipment IAW the proper T.O./handbook?	Para 9.4 & AFMAN 15-129, Para 7.4.2.1
OP3.10. (W) Can personnel operate back-up temperature measuring equipment IAW the proper T.O./handbook?	Para 9.4, AFMAN 15-129, Paras 7.4.1.1 & 7.4.1.2
OP3.11. (W) Can personnel operate primary pressure measuring equipment IAW the proper T.O./handbook?	Para 10.5, AFMAN 15-129, Para 7.4.2.1

Item	Reference
OP3.12. (W) Can personnel operate back-up pressure measuring equipment IAW the proper T.O./handbook?	Para 10.5, AFMAN 15-129, Paras 7.4.1.1 & 7.4.1.2
OP3.13. (W) Are personnel able to troubleshoot the N-TFS/AMIS to determine whether problems are communications, equipment, or software based?	AFMAN 15-129, Para 8.6.1
OP3.14. (W) Are personnel able to execute back-up communication procedures in case of a major system outage?	AFMAN 15-129, Para 8.6.2

SECTION OP4: ANALYSIS AND FORECAST PROGRAM (AFP)
Total items this section:

(S) Strategic Center: 19 (O) Operational Weather Squadron: 30 (W) WS/WF/DET/OL: 18

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
OP4.1. (S) Do personnel correctly depict frontal positions, location of pressure system centers and areas of precipitation; including type of precipitation on the synoptic scale surface analyses for the entire globe?	Para 2.5.1.3.1
OP4.2. (O) Do personnel correctly depict, at a minimum, the following features: frontal positions, isobars at 4-millibar (mb) intervals, location of pressure system centers and areas of precipitation to include type and intensity of precipitation on the mesoscale level surface analyses for its AOR?	Para 2.5.1.3.2
OP4.3. (S, O) Do personnel use continuity to track significant weather features of concern?	Paras 2.5.1.3.4, 2.5.1.4.2.2 & 2.5.1.9.4
OP4.4. (W) Do personnel visually integrate real-time surface weather observations, radar, satellite imagery, and data from other sources with AFWA and OWS surface analyses?	Paras 2.5.1.3.5 & 2.5.1.7.4
OP4.5. (W) Do personnel visually integrate real-time pilot reports, radar, satellite imagery, and local data with AFWA and OWS upper air analyses?	Paras 2.5.1.4.3 & 2.5.1.7.4
OP4.6. (S) Do personnel perform and provide a separate, twice daily, severe weather analysis for the CONUS?	Paras 2.5.1.4.1.3, 2.5.1.6.1 & Table 2.2
OP4.7. (O) Do personnel perform a regionally tailored severe weather analyses for resource protection in the CONUS?	Para 2.5.1.6.3 & Table 2.2
OP4.8. (S) Do personnel correctly generate a global Severe Weather Threat Assessment?	Para 2.5.1.4.1.3
OP4.9. (S, O, W) Do personnel use existing upper air sounding plots and analyses already available in its AOR?	Para 2.5.1.5
OP4.10. (O) Do personnel use AFWA's severe weather analysis package for the CONUS?	Para 2.5.1.6.2

Item	Reference
OP4.11. (O) Do personnel analyze METSAT imagery using standard weather representations and symbols?	Para 2.5.1.7.3 & Table 2.4
OP4.12. (S, O, W) Do personnel incorporate METSAT imagery and analyses into briefings?	Para 2.5.1.7.4
OP4.13. (O) Do personnel notify the CWT when they detect a possible radar signature, indicating severe weather?	Para 2.5.1.8.2
OP4.14. (W) Do personnel visually monitor and track weather radar products, as resources permit, to identify existence of mission-significant weather?	Para 2.5.1.8.3
OP4.15. (W) Do personnel notify the OWS when they detect a possible radar signature, indicating severe weather?	Para 2.5.1.8.3
OP4.16. (O) Do personnel evaluate NWP data to select the “model of consistency”?	Paras 2.5.1.9.1 & 2.5.1.9.4 – 2.5.1.9.4.7
OP4.17. (O) Do personnel verify, initialize, and check the model for trends as soon as possibly after data receipt?	Para 2.5.1.9.4.6
OP4.18. (O) Can personnel correctly produce a discussion or product that indicates the model of consistency and its adjustments?	Para 2.5.1.9.4.7
OP4.19. (O) Do personnel use local procedures, checklists and tools to determine weather regimes found in the AOR?	Para 2.5.1.10.
OP4.20. (S, O, W) Do personnel monitor observations depicting the space weather situation or rely on products from the strategic center to have an awareness of the current state of the space environment, as required?	Para 2.5.1.11.
OP4.21. (S, O, W) Do personnel correctly use climatology along with other tools and techniques in the forecast (MEF) process?	Para 2.5.2.3.
OP4.22. (S, O, W) Do personnel use the correct worksheets, checklists, techniques and tools designed for its operations, weather regimes, and products issued?	Paras 2.5.2.5.1.2 & 2.5.2.6.1 – 2.4.2.6.4
OP4.23. (O, W) Are personnel familiar with the FRN for their area of responsibility forecast locations and alternate airfields, and/or maneuver areas routinely used by supported units?	Para 2.5.2.7.3
OP4.24. (S, O, W) Do personnel understand and apply space weather forecasts to weather unit customers needs?	Para 2.5.2.8.
OP4.25. (O, W) Do personnel issue TAFs correctly as required?	Paras 2.5.3.5.2.2 – 2.5.3.5.2.2.2
OP4.26. (O, W) Do personnel amend TAFs as required?	Para 2.5.3.5.2.3, Tables 2.10 & 2.11

Item	Reference
OP4.27. (W) Do personnel monitor weather conditions and notify their flying customers of [pending] amendments and notify the OWS when they notice changes before the OWS?	Para 2.5.3.5.2.4
OP4.28. (O) Do personnel correctly issue MOAFs as required?	Para 2.5.3.5.6 & Table 2.15
OP4.29. (O) Do personnel amend MOAFs as required?	Para 2.5.3.5.8 & Table 2.16
OP4.30. (S) Do personnel produce and amend composite worldwide products?	Para 2.5.4.2.1
OP4.31. (O) Can personnel disseminate weather watches, warnings, advisories and Terminal Aerodrome Forecasts using NTFS/AMIS?	Para 2.5.4.2.2 & Attach 4
OP4.32. (S, O) Do personnel continuously METWATCH aerospace weather conditions in its AOR and compare observed weather conditions to the forecast conditions?	Para 2.5.5.1
OP4.33. (S) Do personnel amend when forecast conditions (for products listed in Tables 2.6, 2.7, 2.10 –2.13 & 2.15-2.16) are out of category/threshold?	Para 2.5.5.2
OP4.34. (O) Do personnel amend weather products (Tables 2.13 & 2.14) according to Table 2.18?	Para 2.5.5.3
OP4.35. (O, W) Do personnel use data provided by PIREPs/AIREPs to enhance the AFP and MEFP, as required?	Para 4.2.1.14.5.5
OP4.36. (O, W) Do personnel support all PMSV contacts from aircrews requiring enroute weather updates?	Paras 4.2.2.1.1 & 4.2.2.1.4
OP4.37. (S, O) Do lead meteorologists review products and perform quick-look technical verification of products to access the [horizontal] accuracy of products issued during the work shift?	Paras 2.7.1, 2.7.2 & 2.7.3
OP4.38. (O) Do lead meteorologists determine the synoptic situation for the day, identify the regional forecast problems, and conduct weather discussions with shift personnel to coordinate daily forecast reasoning and product development?	Para 2.7.4
OP4.39. (S) Do personnel conduct a telecon at least once per day for severe weather analysis, potential, and the forecast?	Para 2.9.1.1
OP4.40. (S) Do personnel produce and post a hemispheric hazards bulletin/discussion to JAAWIN?	Para 2.9.1.1.1
OP4.41. (S) Do personnel produce and post a NWP discussion/bulletin to JAAWIN?	Para 2.9.1.1.2
OP4.42. (S) Do space personnel issue discussion bulletins that explain significant events and trends of solar activity, space weather, and geomagnetic activities?	Para 2.9.1.2
OP4.43. (O) Do personnel properly conduct discussions with CWTs in their AOR?	Para 2.9.1.4
OP4.44. (W) Do personnel conduct internal meteorological discussions using information provided by the OWS?	Para 2.9.1.5

OP4.45. (S, O, W) Do personnel properly conduct shift change briefings?	Para 2.9.2

SECTION OP5: METEOROLOGICAL WATCH AND RESOURCE PROTECTION
Total items this section:

(S) Strategic Center: 0 (O) Operational Weather Squadron: 14 (W) WS/WF/DET/OL: 15
Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
OP5.1. (W) Do personnel assist the OWS METWATCH process by being the "eyes forward" and providing the OWS real-time feedback?	Para 3.1.1.1
OP5.2. (O, W) Do personnel perform METWATCH in accordance with local procedures?	Paras 3.1.1.1 & 3.1.2.1 – 3.1.2.4
OP5.3. (O, W) Do personnel perform MISSIONWATCH in accordance with local procedures?	Para 3.1.3 – 3.1.3.2 & 4.1.3.8
OP5.4. (O, W) Do personnel issue WATCHs, WWs and WAs IAW general rules and supplemental local procedures?	Paras 3.2.3, 3.2.4, 3.2.5 & Table 3.3
OP5.5. (O, W) Do personnel amend, extend, or cancel WATCHs, WWs and WAs IAW general rules and supplemental local procedures?	Paras 3.2.4.2.9, 3.2.5.1.6 – 3.2.5.6 & Table 3.6
OP5.6. (O, W) Do personnel maintain consistency between WWs, WAs and other forecast products?	Para 3.2.3.3
OP5.7. (O, W) Do personnel document WATCHs and WWs correctly?	Para 3.2.6.1 & Attach 4
OP5.8. (O, W) Do personnel document WAs correctly?	Para 3.2.6.2 & Attach 5
OP5.9. (O) Do personnel verify (objectively or subjectively) all WWs and FWAs as required?	Para 3.2.7.1
OP5.10. (O, W) Do unit personnel compute Issue Times, Valid Times, Actual Lead-Times, Desired Lead-Times, Timing Error, and Negative Lead-times correctly on all WATCHs, WWs, and WAs?	Para 3.2.7.1.1
OP5.11. (O, W) Do personnel know when to implement a SWAP and recall the SWAT?	Para 3.2.8
OP5.12. (W) Do unit personnel maintain product consistency and convey OWS-issued WATCHs, WWs, and WAs verbatim to their supported units and in their MEFs?	Para 3.2.11
OP5.13. (O, W) Do personnel use the tropical cyclone forecasts issued by the designated tropical cyclone centers?	Para 3.2.13.2.1
OP5.14. (O, W) Do personnel not deviate from the official forecast position, track, movement, maximum wind speed or intensity?	Para 3.2.13.2.2

OP5.15. (O) Do personnel use the wind forecasts from the tropical cyclone bulletins and tailor the forecasts for terrain effects to issue TAFs, WATCHs, WWs, and FWAs?	Para 3.2.13.2.3
Item	Reference
OP5.16. (O, W) Do personnel use space weather warnings as needed?	Para 3.2.14
OP5.17. (W) Do personnel notify the supporting OWS when they move to their alternate work area?	Para 9.4.4

SECTION OP6: MISSION EXECUTION FORECAST
Total items this section:

(S) Strategic Center: 0 (O) Operational Weather Squadron: 17 (W) WS/WF/DET/OL: 23
Notes: All references are from AFMAN 15-129 unless otherwise stated. Specialized sections in an OWS and AFWA operate as a CWT and use the MEFP—AFMAN 15-129, Chapter 4.

Item	Reference
OP6.1. (W) Do personnel maintain consistency with OWS-issued products in the development of their MEFs?	Para 4.1.3.3
OP6.2. (O, W) Are personnel familiar with and able to reference characteristics and weather limitations of each weapon and communication system routinely supported?	Paras 4.1.3.4 & 4.1.3.6
OP6.3. (W) Do personnel relay any significant changes in the MEF to mission controllers or decision-makers?	Para 4.1.3.8.1
OP6.4. (W) Can personnel determine the “lead” weather unit?	Para 5.3.2 & Table 5.1
OP6.5. (O, W) Do personnel develop Flight Weather Briefings according to the MEFP?	Para 4.2.1
OP6.6. (O, W) Do personnel instruct aircrews on obtaining flight weather briefings at their destinations?	Para 4.2.1.2
OP6.7. (O, W) Do personnel encourage aircrews to provide the OWS a minimum of 2 hours advance notice before brief time?	Para 4.2.1.3
OP6.8. (W) Do personnel debrief returning missions on aspects of weather support provided whenever possible?	Para 4.2.1.5
OP6.9. (W) Do personnel crossfeed debrief data to applicable work centers and the supporting OWS for immediate enhancement of forecast products and services?	Para 4.2.1.5
OP6.10. (W) Do personnel obtain the required metric assessment data from the mission debrief?	Para 4.2.1.5

OP6.11. (W) Do personnel notify the supporting OWS of any aircraft mishaps or ground mishaps requiring OPREP-3 reporting or local requirements to initiate data-save procedures for OWS-produced products used by CWTs in preparing flight weather briefings?	Para 4.2.1.6
OP6.12. (O) Do personnel notify AFWA in the event of an aircraft mishap to save all applicable data?	Para 4.2.1.6.1
OP6.13. (O, W) Do personnel save the MEF and associated data and products used in the MEFP as a result of an aircraft mishap?	Para 4.2.1.6.2
OP6.14. (O, W) Do personnel document all flight weather MEFs correctly?	Paras 4.2.1.8
Item	Reference
OP6.15. (O, W) Do personnel fill out the DD Form 175-1 or applicable form (electronic or paper) correctly?	Para 4.2.1.8.1 & Attach 6
OP6.16. (O, W) Do personnel verbally remind or add pertinent remarks to the flight weather briefing MEF to alert aircrews to update weather if more than 90 minutes elapses between the briefing and departure?	Para 4.2.1.8.2
OP6.17. (O, W) Do personnel document verbal briefings correctly?	Para 4.2.1.8.3
OP6.18. (O, W) Do personnel use the DD Form 175-1, or other MAJCOM designated flight weather briefing forms as an outline for presenting the flight weather MEF briefing?	Para 4.2.1.9
OP6.19. (O, W) Do personnel ensure the weather data used for the flight weather MEF is current?	Para 4.2.1.10
OP6.20. (O, W) Do personnel use radar, satellite imagery, observed data and products, and forecast products to enhance briefings when possible?	Para 4.2.1.11
OP6.21. (O, W) Do personnel use the term thunderstorm rather than CBs or cumulonimbus in the flight weather briefing?	Para 4.2.1.13
OP6.22. (O, W) Do personnel obtain the necessary mission and target data required to run a TDA from operators and intelligence personnel?	Para 4.3.1
OP6.23. (O, W) Can personnel operate the appropriate TDA software?	Para 4.3.3
OP6.24. (O, W) Can personnel develop TDA MEFs for both automated and manual input/output?	Para 4.3.4

SECTION 7: PMSV/PIREPS

Total items this section:

(S) Strategic Center: 0 (O) Operational Weather Squadron: 19 (W) WS/WF/DET/OL: 21

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
OP7.1. (O, W) Do personnel provide the appropriate forms to record observations for over water flights or when requested?	Para 4.2.1.14.2.2.1
OP7.2. (O, W) Do personnel request that the aircrew turn in completed forms when they arrive at their destination?	Para 4.2.1.14.2.2.2

OP7.3. (O, W) Do personnel correctly use AF Form 3805, Pilot Report, MAJCOM, or locally developed form as a worksheet to aid in formatting PIREPs for dissemination?	Para 4.2.1.14.3.1
OP7.4. (O, W) Do personnel follow AFMAN 15-124 for longline transmission of PIREPs?	Para 4.2.1.14.3.3, AFMAN 15-124, Para 5.2
OP7.5. (O, W) Do personnel correctly record AIREPs on the AF Form 72, MAJCOM, or locally developed form?	Para 4.2.1.14.4
Item	Reference
OP7.6. (O, W) Do personnel transmit all severe PIREPs (UUA) and AIREP Specials (ARS) longline when they contain one or more of the phenomena listed in AFMAN 15-129, Table 4.2 or 4.3?	Para 4.2.1.14.5.1, Table 4.2 & 4.3
OP7.7. (O, W) Do personnel correctly encode and disseminate longline routine PIREPs and AIREPs as required?	Paras 4.2.1.14.5.2-4.2.1.14.5.2.3, 4.2.2.1.7 & FAA Order 7340.1
OP7.8. (W) Do personnel correctly disseminate applicable PIREPs/AIREPs locally?	Para 4.2.1.14.5.4, 4.2.2.1.7 & FAA Order 7340.1
OP7.9. (O, W) Do personnel provide support to aircrews unable to contact their home station or an OWS/CWT after two calls?	Paras 4.2.2.1.1, 4.2.2.1.3 & 4.2.2.1.4
OP7.10. (W) Do personnel notify their supporting OWS when they are unable to monitor their PMSV?	Para 4.2.2.1.2
OP7.11. (O, W) Do only qualified personnel respond to PMSV calls?	Para 4.2.2.1.5
OP7.12. (O, W) Do personnel follow locally established procedures for PMSV operations and proper radio discipline and phraseology?	Para 4.2.2.1.6 & FAA Order 7110.10
OP7.13. (O, W) Do personnel solicit PIREPS/AIREPS at the end of the PMSV contact?	Para 4.2.2.1.7
OP7.14. (O, W) Do personnel ensure mission significant PIREPs/AIREPs are communicated between CWT and OWS?	Para 4.2.2.1.8
OP7.15. (O, W) Do personnel document PMSV contacts correctly?	Para 4.2.2.1.9
OP7.16. (O, W) Do personnel perform and document at least one equipment check each day?	Para 4.2.2.1.10
OP7.17. (O, W) Do personnel log all PMSV equipment outages?	Paras 4.2.2.1.11 & 4.2.2.1.15
OP7.18. (W) Can personnel execute short-term PMSV outage procedures?	Para 4.2.2.1.12

OP7.19. (O, W) Can personnel execute long-term outage notification procedures?	Para 4.2.2.1.14
OP7.20. (O) Do personnel notify all supported units in their AOR of PMSV outages, back-up arrangements, and return-to-service time?	Para 4.2.2.1.15
OP7.21. (O, W) Do personnel know the documented PMSV limitations?	Paras 4.2.2.1.17 & 4.2.3.2
OP7.22. (O, W) Do personnel use standard PMSV procedures when providing weather services to aircrews via other communications devices?	Paras 4.2.2.2, 4.2.2.1.5, 4.2.2.1.6, 4.2.2.1.7 & FAA Order 7110.10

SECTION OP8: RADAR
Total items this section:

(S) Strategic Center: 14 (O) Operational Weather Squadron: 19 (W) WS/WF/DET/OL: 19
Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference
OP8.1. (S, O, W) Can personnel describe the Doppler theory?	RADAR QTP, Para 1.2.1
OP8.2. (S, O, W) Can personnel define and explain how the following principles effect base products: (a) Standard refraction (b) Subrefraction (c) Superrefraction (d) Ducting	RADAR QTP, Para 1.1.3
OP8.3. (S, O, W) Can personnel define and describe the affects of the “Cone of Silence”?	RADAR QTP, Para 1.1.3.5
OP8.4. (S, O, W) Can personnel define Radial Velocity?	RADAR QTP, Para 1.2.1.2
OP8.5. (S, O, W) Are personnel aware of the general limitations associated with the radar?	RADAR QTP, Paras 1.1.2.1 -1.1.4
OP8.6. (S, O, W) Can personnel define Velocity Aliasing?	RADAR QTP, Para 1.2.1.3
OP8.7. (S, O, W) Can personnel distinguish the difference between scan strategies and volume coverage patterns (VCPs)?	RADAR QTP, Para 2.1.1.1
OP8.8. (S, O, W) Can personnel identify different parts of the data legend?	RADAR QTP, Para 3.1

OP8.9. (S, O, W) Can personnel produce, explain, and interpret data on base products? (a) Reflectivity (b) Velocity (c) Spectrum Width	RADAR QTP, Para 3.2
OP8.10. (S, O, W) Can personnel produce, explain, and interpret data on derived products? (a) Composite Reflectivity (CR) (b) Echo Tops (ET) (c) Vertically Integrated Liquid (VIL) (d) Storm Relative (SRR & SRM) (e) VAD Wind Profile (VWP)	RADAR QTP, Para 3.3
Item	Reference
OP8.11. (S, O, W) Can personnel interpret the hail product and attribute table entries or overlay information?	RADAR QTP, Para 3.3.4
OP8.12. (O, W) Can personnel manually identify severe weather signatures?	RADAR QTP, Para 4.2.4.4
OP8.13. (O, W) Can personnel manually identify and verify mesocyclones/TVS signatures?	RADAR QTP, Para 4.2.4.4
OP8.14. (O, W) Can personnel interrogate the storm's structure using the tilt sequence method?	RADAR QTP, Para 4.2.4.4
OP8.15. (S, O, W) Can personnel determine the radar status?	RADAR QTP, Para 5.1.3
OP8.16. (O, W) Are personnel aware of the alert area locations and thresholds?	RADAR QTP, Para 2.4
OP8.17. (S, O, W) Do personnel consider environmental factors before interpreting radar data?	Para 7.2.2.2
OP8.18. (O, W) Do personnel make optimum use of RPS lists and VCPs for storm interrogation?	Para 7.2.2.2
OP8.19. (S, O, W) Can personnel print/archive radar data for aircraft mishaps, RIRF, etc. IAW local procedures?	Para 7.2.3

SECTION OP9: METSAT

Total items this section:

(S) Strategic Center: 20 (O) Operational Weather Squadron: 20 (W) WS/WF/DET/OL: 20

Note: All references are from AFMAN 15-129 unless otherwise stated

Item	Reference

OP9.1. (S, O, W) Can personnel explain geostationary satellite imaging to include advantages and disadvantages of use?	Metsat QTP, Paras 1.1 – 1.1.3
OP9.2. (S, O, W) Can personnel explain polar orbiting satellite imaging to include advantages and disadvantages of use?	Metsat QTP, Paras 1.2 – 1.2.3
OP9.3. (S, O, W) Can personnel explain VISUAL (VIS) metsat imagery to include strengths, weaknesses, and best uses?	Metsat QTP, Paras 2.2.1 – 2.2.1.2
OP9.4. (S, O, W) Can personnel explain INFRARED (IR) metsat imagery to include strengths, weaknesses, and best uses?	Metsat QTP, Paras 2.2.2 – 2.2.2.2
OP9.5. (S, O, W) Can personnel explain WATER VAPOR (WV) metsat imagery to include strengths, weaknesses, and best uses?	Metsat QTP, Paras 2.2.3 – 2.2.3.2
OP9.6. (S, O, W) Can personnel explain the “pros” of enhancing metsat imagery?	Metsat QTP, Para 2.3
OP9.7. (S, O, W) Can personnel describe five common enhancements, their common use, and any “pros or cons” for using them?	Metsat QTP, Paras 2.3.1 – 2.3.1.5
Item	Reference
OP9.8. (S, O, W) Can personnel identify Fog on metsat imagery?	Metsat QTP, Para 3.2.3.1
OP9.9. (S, O, W) Can personnel identify Stratus on metsat imagery?	Metsat QTP, Para 3.2.3.2
OP9.10. (S, O, W) Can personnel identify cumulonimbus clouds on metsat imagery?	Metsat QTP, Para 3.2.3.6
OP9.11. (S, O, W) Can personnel identify synoptic scale cloud organizations on metsat imagery?	Metsat QTP, Paras 3.3 – 3.3.2.3
OP9.12. (S, O, W) Can personnel identify non-cloud features on metsat imagery?	Metsat QTP, Paras 3.4 – 3.4.7
OP9.13. (S, O, W) Can personnel locate and depict upper-level flow features on metsat imagery?	Metsat QTP, Paras 4.1 – 4.1.6
OP9.14. (S, O, W) Can personnel locate and depict low-level flow features on metsat imagery?	Metsat QTP, Paras 4.2 – 4.2.1.4
OP9.15. (S, O, W) Can personnel locate and depict surface features on metsat imagery?	Metsat QTP, Paras 4.2.2 – 4.2.4
OP9.16. (S, O, W) Can personnel identify outflow boundaries on metsat imagery?	Metsat QTP, Para 4.3.1
OP9.17. (S, O, W) Can personnel define MCS and MCC and identify on metsat imagery?	Metsat QTP, Paras 4.3.2 & 4.3.3
OP9.18. (S, O, W) Can personnel identify mountain wave clouds on metsat imagery?	Metsat QTP, Para 4.4.1
OP9.19. (S, O, W) Can personnel identify transverse banding on metsat imagery?	Metsat QTP, Para 4.4.2

OP9.20. (S, O, W) Can personnel print/archive METSAT for aircraft mishaps, MIRF, etc., IAW local procedures?	Para 7.3.3

Attachment 4 (Added-AMC)

AFWSEP EVALUATION ITEMS

PR1.4.1. (Added). (W) Has the unit conducted an exercise or real-world AOS evacuation at least once per quarter and documented the exercise in a MFR? Reference: AFMAN 15-111, AMC Supplement 1, paragraphs 2.3.4.3. & 2.3.4.3.1.	Para 2.3.4.
PR1.4.2. (Added). (W) Does the written agreement/WSD between the weather flight and the agency providing the AOS location clearly detail what equipment and facilities will be reserved for use by weather personnel? Reference: AFMAN 15-111, AMC Supplement 1, paragraph 2.3.4.1.1.	Para 2.3.4.